THE

RETROSPECT

OF

PRACTICAL MEDICINE AND SURGERY,

FOR THE YEAR 1840:

BEING

AN ANALYSIS OF THE BRITISH AND FOREIGN MEDICAL JOURNALS AND TRANSACTIONS;

OR,

A SELECTION OF THE LATEST DISCOVERIES AND MOST PRACTICAL OBSERVATIONS IN THE PRACTICE OF MEDICINE, SURGERY, AND THE COLLATERAL SCIENCES, FOR THE PAST YEAR,

MADE CHIEFLY WITH REFERENCE TO

THE TREATMENT OF DISEASE.

BY

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VOL. I.

No. I. JANUARY—JULY.

LONDON:

SIMPKIN, MARSHALL, AND CO.

MDCCCXL.

D. I. ROEBUCK, PRINTER, 12, GRACE STREET, LEEDS

PREFACE.

THERE are published, at present, a great many most valuable Medical Journals in Great Britain, America, and on the Continent, all of which generally contain matter of a most interesting nature, and of the most vital consequence to the Medical man. Embodied in the general information of these Journals are also the valuable remarks and experience of the able editors. And, besides these works, we have the Transactions of the different Medical Societies and Associations, published at stated times, which we may include under the name of the Periodical Medical Literature of the day. Now these Medical publications are, collectively, too voluminous and expensive for the generality of Medical practitioners. There is likewise mixed up, in the different works, a great mass of information which, however interesting of its kind it may be, is not of much use to the Physician and Surgeon, who are actively engaged in bed-side practice, and who want to know, with as little *unnecessary* reading as possible, all that is going on in the Medical world, and especially all that refers to the practical parts of their profession, and to the treatment of disease in particular.

The editor of this work has been accustomed for some time past, to make memorandums of the most interesting articles and observations which he met with in the different Medical Journals; and it occurred to him that they would be exceedingly useful to the profession in the form in which they are now presented. They form a series of extracts and analyses respecting the treatment of disease which must be of the greatest use to every practitioner; as they will refresh the memories of those who may have already perused them, and to the majority of the profession who have only seen part of them, they will be a real novelty.

If the editor is sufficiently encouraged by the profession, he intends presenting to it two half-yearly parts *annually*, one in July, and another in January, so as to form one annual volume—which will constitute a condensed Register of Medical facts and observations for the past year, and a complete Retrospect of all that is valuable and worth preserving respecting the treatment of disease, gleaned from the British and Foreign Medical Journals, and the Transactions of the different Societies and Associations, and presented to the reader in as condensed a form as possible, and generally in the words of the different authors.

The work will be on the same plan as the "*Year Book of Facts*," now conducted by the editor of the Arcana of Science, in which work will be found extracts and analyses from almost all the periodicals except those

which are devoted exclusively to Medical subjects. It contains, almost entirely, matters of fact; and it is to be hoped that this little work will, in the same way, contain nothing but what is truly valuable to the Medical practitioner, and especially to such as are already well versed in the rudiments of the profession, and actively engaged in practice. As few editorial remarks as possible have been made, as it would not have been possible to condense into so small a compass more useful matter than is here given: most of the articles being so extremely condensed, either in the words of the authors themselves, or in those of the different talented reviewers from whose works they have been extracted, that any further analysis would have been impossible. Of course the editor cannot lay claim to the least originality in the work—all that he can lay claim to is a certain portion of industry in carefully reading a great number of works, and a certain degree of judgment in selecting, arranging, and condensing the different articles.

There are very few Medical men in the present day, probably, who take the the trouble to read every periodical, for the sake of gleaning from different parts that which is the most valuable and practical: and there are still fewer who could afford to take them all in ; and especially those country practitioners who have not the advantage of subscribing to a public Medical library. The work will form a kind of general index to all the Medical Journals of the day, pointing out those articles which are more particularly useful, and refreshing the memories of those gentlemen who have already read the articles and perhaps forgotten them. It seems a pity that such a thing was never before attempted, and that all the valuable matter which is to be found scattered in the different Medical journals has not been regularly re-spread before the profession, so that a parting bird's-eye view might be had: for we are quite sure that a great majority of the profession are totally ignorant of the great mass of practical information which is constantly being published in one journal or another, simply because that information is in too *scattered* a form to be readily found by the active practitioner. He has to read too much to find the valuable matter which he wants, and probably his time, his habits, or his income will not allow him to do this.

Nothing would have been more easy than to have altered the words of the different authors so as to give the same information more in the words of the editor himself; but he aims more at being made useful to his brother practitioners than to run away with any honour which might belong to another; and he hopes, by strictly adhering to this principle, to meet with the encouragement of the profession in his future compilations.

It has, therefore, been his endeavour to add as little as possible to the original articles—curtailing and condensing them, however, as much as possible, so as to be accommodated to the size of the present volume. For example many of the articles which are here given are very long ones in the journals from which they are extracted, and therefore every portion which is not strictly practical has been omitted, and only the most useful portions retained; and still the articles remain in the words of the authors or the reviewers; which will be found a great advantage,

as the practical man only wants facts and observations to be laid before him, and he will always be able to draw his own conclusion as well as when assisted by the opinion of a second or a third person: as an example we may cite our 43rd Article, at page 116, on Club Foot, by Dr. Detmold. The original paper in the New York Journal of Medicine and Surgery occupies sixty-four pages, but it is here condensed into little more than nine, and still nearly every practical part is retained and given in the words of the author himself. The same principle has been adopted wherever the articles would admit of it throughout the work.

It has also been the editor's wish to refer particularly to every article in the original works, so that the reader may easily refer to the places and read for himself: and he trusts that this compilation will only stimulate his professional brethren to read more than ever the excellent publications here referred to.

The editor feels himself called upon to express his warmest thanks to the editors of the following works in particular, viz. the "*London Medical Gazette*," the "*Lancet*," the "*Edinburgh Medical and Surgical Journal*," the "*London Medico-Chirurgical Review*," the "*British and Foreign Medical Review*," the "*Dublin Journal of Medical Science*," the "*New York Journal of Medicine and Surgery*," the "*Dublin Medical Press*," "*Guy's Hospital Reports*," the "*Royal Medico-Botanical Transactions*," the "*American Journal of the Medical Sciences*," and the "*Medical Times*;" and he hopes that he will be permitted and encouraged by these gentlemen to continue this half-yearly selection from their valuable works, as it will not in the least interfere with either the sale or the usefulness of their own works; and will moreover extend the information which they contain to a large class of practitioners who only peruse one or two of them at most, and who consequently arrive at the information contained in the rest in a circuitous way. But it may be asked what right has the editor to suppose that the Medical profession will place confidence in his judgment in the selection of the information herein contained. His only answer would be, (and it is mentioned very reluctantly, and as an apology to the Medical public for the present undertaking) that within the last ten years he has been called upon to attend at their own homes above fifteen thousand separate cases—cases of all descriptions, Medical, Surgical, and Obstetrical; and that considerably above two thousand of these cases have been in the practice of Midwifery: and this number is quite exclusive of those patients which have attended at his own house. He feels that this circumstance alone is a sufficient guarantee for the judiciousness of any selection of practical information which he may lay before the public.

The work is more particularly adapted to men engaged in active practice, and who are presumed to be well acquainted with the pathology and symptoms of disease; for it would not be possible to condense into so small a volume every thing which is written in the Journals concerning the nature of diseases, and therefore the *treatment* has been chiefly attended to.

The present volume will not contain so much matter from the Continental Journals as the editor could wish, and that which is contained in it, is procured from the English Journals. But if the profession should see fit to encourage him, it is the editor's intention hereafter to extend the usefulness of the work, and extract, especially from the German and French periodicals, all that is valuable and practical.

Some of the most interesting articles are from Journals which the reviewers themselves have extracted or condensed from other works; and as the editor could not have curtailed the original articles any better, nor perhaps so well, he has generally extracted them *verbatim*, as they also contain the valuable remarks of many of the talented editors in addition to the original matter; and the reader will easily distinguish which part of the different articles belongs to the reviewers and authors, and which to the editor – the observations of the latter being either included in brackets, or printed in different type.

The work has been arranged under as few heads as possible; for example, under Practical Medicine are arranged articles on Pharmaceutical Chemistry, Materia Medica, Toxicology, &c. as they do in fact refer to the practice of Medicine, and it would have been difficult at all times to know under what head to insert some articles which refer both to one and to the other.

Park-Square, Leeds,
June 1840.

ERRATA.—For " naturally," p. 29, line 26, read " materially."
For " Symphasis," p. 180, line 10, read " Symphysis."

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PRACTICAL MEDICINE,

&c. &c.

ART. 1.—ON THE EMPLOYMENT OF SEA SALT (CHLORIDE OF SODIUM,) in Pulmonary Consumption, Scrofulous Affections, &c. By M. AMEDE LATOUR.

M. Latour was first induced to give a trial to this remedy in phthisis, from its reported efficacy in preventing or curing pulmonary complaints among the lower animals. A great mortality prevails amongst the apes and monkies confined in menageries, chiefly from pulmonary complaints; and the proprietor of a menagerie found, that by the free use of sea salt, he was enabled to preserve these animals in health for seven or eight years; and, even after a cough had manifested itself, the administration of the salt was followed by a rapid cure.

M. Latour relates three cases in the human subject, in which the administration of salt appears to have been followed by the happiest results. In one of the cases, the disease had gone so far, that there was distinct cavernous rattle with pectoriloquy, muco-purulent and purulent expectoration streaked with blood, great emaciation, hectic fever, &c. and yet the patient made a perfect recovery at the end of a few months, the sea salt having been given uninterruptedly for sixty days.

M. Latour directs a particular regimen to be followed during the treatment. The aliment should consist almost exclusively of beef or mutton grilled or roasted, of good rich soups, or animal jellies. The patient should partake of these in small quantity at a time, but often, and should drink a little good old wine diluted with water. Every fine day, when the sun shines, and during its warmest period, the patient should take gentle

exercise in the open air; and his chamber should be well aired twice or thrice a day. Flannel is recommended to be worn next the skin.

The mode of administration of the salt is as follows: Half a drachm to a drachm of the chloride of sodium is administered daily, either in a glass of beef-tea, or in some pectoral infusion, or if this should excite cough, it may be given in divided doses made up into bread pills, drinking a little beef-tea afterwards. It is best to commence with small doses, as the sudden introduction into the system of such a powerful stimulant, is apt to be followed by congestions of blood in the digestive organs or lungs. A few cresses are recommended to be eaten once or twice every week, after having been well sprinkled with common salt, but no vinegar or oil is allowed with them. To relieve the pains in the chest, and the burning sensations of which the patient complains, instead of the usual pectoral drinks he prescribes the following: Carrots are to be well boiled in a moderate quantity of water; they are then to be well beaten, and passed through a sieve. The fluid which passes through is then mixed with fresh milk, sweetened with a small quantity of sugar, and flavoured with orange-peel. This compound the patient drinks at his own discretion. In general some thirst is at first caused by the administration of the sea salt, and for this M. Latour directs a weak infusion of gentian flavoured with orange-peel.

Gazette des Medecins Practiciens, 1839,—*and Edinburgh Medical and Surgical Journal, Jan.* 1840, *p.* 245.

May not this be confirmed by the circumstance that few cases of consumption occur in Egypt, and, it is said that among the Arabs, scarcely a case of the kind has been known; chiefly, it is supposed from the atmosphere being saturated with saline vapour. It is said that "about Alexandria the saline vapour condenses on the walls of the houses in small crystals of nitre, common salt, and muriate of ammonia." The soil is everywhere coated with these saline particles, and yet consumption is almost a stranger in the land. The same may be said of our own Channel Islands—Guernsey, Jersey, Alderney, &c. and here too, consumption is comparatively rare.

2.—ON DISORDERS OF THE STOMACH. By Dr. Debreyne.

Dr. Debreyne condemns the too prevalent system of practitioners of treating all or most stomach disorders as chronic irritation, or inflammation of the gastric mucous membrane. A disciple of the physiological or Broussaian school confounds many of the most important symptoms of chronic affections of this organ with his "acute or chronic gastritis," and treats his cases accordingly by the application of leeches, &c. to the epigastrium, which only give temporary relief.

Now almost every pain—whether phlogistic, rheumatic, neuralgic, or even atonic—is for a time relieved by the application of leeches in the neighbourhood of the affected part. In neuralgic and atonic pains, the relief is however delusive and only temporary; for next day, or even sooner, they are as severe as ever. If this mode of treatment be therefore continued, the patient's strength is more and more exhausted, and the disease probably aggravated at the same time.

In treating of *genuine* chronic gastritis, he dwells particularly on the assistance which may be derived, in discriminating the disease, from watching the effects of different sorts of food upon the severity of the symptoms. "Whenever," says he, "a farinaceous and milk diet is well borne, or at least is better borne, and causes less uneasiness than any form of animal food, even that of simple broth, we have strong reason to suspect the presence of some degree of inflammation. This symptom may be considered as a sort of touch-stone, by means of which we may in general distinguish the irritative from the purely nervous and atonic affections of the stomach. True, it is not an infallible indication; but it is certainly one of the greatest value to assist our correct diagnosis. Of this we may be assured, that whenever an animal diet suits a patient better than a vegetable one, the case is not one of gastritis."

Now for a word or two respecting the treatment of *genuine* chronic gastritis.

As a matter of course, local detraction of blood, spare diet, refrigerants, &c. are to be used. But if after a due employment of these means, the pain of the stomach still continues, we

are not to persevere in the same practice indiscriminately. The pain may now be rather of a nervous than of an inflammatory character; and, if there be good reason to suspect this, a mild opiate, in a mucilaginous vehicle, will be far more serviceable than further bleedings.

Opium is however, on the whole, much less efficacious in gastritis than in enteritis or in dysentery. We should not persevere in its use, if the pain does not yield in the course of two or three days. Under such circumstances, let a blister be applied upon the epigastrium. Should the pain resist this as well as the opiates, we may then regard it as of an atonic character. Attention to the effects of food, animal and vegetable, will assist our diagnosis in this respect, as already explained.

Small doses of rhubarb or calumba, either alone or conjoined with sedatives, such as hydrocyanic acid, minute doses of morphia should now be tried. A low feverish state is apt to follow a too long protracted use of depletory and debilitant remedies.

Atony of the Stomach.—This disease is of not unfrequent occurrence, especially in women affected with leucorrhœa, chlorosis, anæmia, &c.

It is unnecessary to particularise its symptoms, as all the phenomena well known under the too-comprehensive term "dyspepsia" may be present. Even pain, aggravated too on pressure, in the epigastrium, is not uncommon. One important character is, that the distress of the stomach is usually increased by the use of vegetable and farinaceous food, and relieved, more or less, by a generous diet of animal meat, wine, &c.

Neither opiates nor antiphlogistics are suited to such a case: tonics alone are the proper remedies.

There may indeed be a certain degree of inflammatory or of neuralgic pain blended, so to speak, with the atonic pain, which is the prevailing element in the cases now under consideration; and then indeed it will be necessary to modify our treatment, combining the use of occasional leechings and anodynes with the tonic plan. An animal diet of the lighter and white meats at first and subsequently of the stronger ones, the use of some mild ferruginous preparation, of quinine, or some other vegetable bitter, such as gentian, calumba, aloes, &c. in the form either of infusion or of wine, constitute the most approved practice.

In a variety of gastro-atony—characterised by frequent returns of vomiting—there is no remedy more useful than calumba in the form of powder, five to ten grains taken three or four times a day. If the epigastric uneasiness should be troublesome, a mild opiate preparation may be mixed with it.

The patient should be advised to take but little of any watery drinks, such as tea, gruel, &c. Seltzer water is a good beverage.

Gastrodynia and Gastralgia.—The first of these terms should be applied to such pains in the stomach as are of a rheumatic, and the second to such as are of a purely neuralgic nature. The pain in both is almost always much more severe than in genuine chronic gastritis; and yet it is usually not increased, but is often relieved, by pressure on the epigastrium. Moreover, there is no feeling of heat, nor is there much thirst, and the pulse is not quickened. Generally there is but little derangement of the digestion; and almost all kinds of food may be taken, without any decided effects either as to increasing or mitigating the pain. In genuine gastrodynia we can usually discover that there has been the retrocession or transport of a previous rheumatic affection of some of the joints, &c. Hence a certain degree of phlogistic action may be coexistent with the pain;—not so however with *gastralgia.*

As to the treatment, opiates are on the whole the most efficacious remedies. In many cases they require to be administered in large doses. Some of the diffusible antispasmodics, such as æther, camphor, the liquor Hoffmanni, &c. are often useful. The sub-nitrate of bismuth is an admirable preparation in numerous cases. Sometimes, more especially where the disease is of a rheumatic character, the use of blisters, applied either to the epigastrium or to one of the lower limbs, is necessary.

We shall close these remarks with a few words as to the use of opium in painful affections of all sorts of the digestive canal. There is no remedy so generally beneficial, nay, even necessary, as opium in such affections; as for example—in cramps, colicky pains, dysentery, as well as in gastralgia. In some cases, it must be associated with blood-letting; in others, with laxatives and emetics; and in a third set, with bitters and tonics. Medical men have been, especially during the last thirty years, far too timid in the employment of this admirable remedy in the treatment of disease. They forget that often, very often, nature

only requires to be freed from present pain, to enable her to restore a disordered function to a healthy condition, and a suffering organ to the regular performance of its duties without distress or inconvenience.

Revue Medicale, and Med. Chir. Review, Jan. 1840, *p.* 233.

In Dr. Debreyne's treatment of gastrodynia and gastralgia of the stomach with opium, he might have referred more particularly to the prussic acid, which, when *properly prepared and preserved,* we have found so efficacious in this country—and especially when combined with small doses of the acetate of morphia, as the eighth or the sixteenth of a grain, three or four times a day. We have seldom or never had occasion to give *large* doses of opium in these cases, as we almost invariably succeed with these minute doses of morphia, when properly persevered in, and assisted by proper regimen. And when we fail with these remedies, we have recourse to Dr. James Johnson's favourite remedy of nitrate of silver, given in small doses, which will be found a most valuable, and we might almost say, certain remedy in such cases—and therefore, we are the more surprised that no mention of it is made here by Dr. Debreyne.*

3—ON DIURESIS AS A REVULSIVE ACTION IN DISEASES OF INFANTS. By Dr. Simon.

Dr. Simon prefaces his remarks by alluding to the frequent inactivity, and sometimes, the almost complete suspension of the functions of the bowels and kidneys, while the system of the child is suffering severely from dentition. Whenever the intestinal or urinary excretion is much diminished, the febrile irritation of the system, it is well known, is invariably greater than usual; and, if this state of things be permitted to continue without relief, there is much risk of alarming cerebral symptoms quickly making their appearance. The practitioner will therefore do well to pay particular and uniform attention to the

* For some interesting observations on the use of nitrate of silver, see a paper in the May number of the Dublin Medical Journal; referred to likewise in this work. *(See table of Contents.)*

condition of the bowels and kidneys in all diseases of infancy and childhood. The simple question as to the quantity and colour of the urine—and by the bye we can much better trust the report of nurses about the state of the urine than we can about that of the alvine evacuations—will often enable us at once to form a correct opinion as to the general or constitutional health of our patient. As long as the kidneys act freely, there is little or no risk in the symptoms of mere dentition, however severe and distressing these may be. The same remark is, we believe, strictly applicable to the prognosis of most cerebral affections in children. When the urinary secretion is scanty and deep coloured, the circulation seems to be both oppressed and excited; and the rapid, on some occasions, almost instantaneous mitigation of the alarming symptoms, after a copious discharge of water, is well known to all experienced practitioners. To promote this critical diuresis, a purgative composed of senna and salts, and then frequently repeated doses of nitre, are the simplest and most efficient means that can be resorted to.

The chief danger of dentition is referable to the vascular excitement of the brain. Nor is this wonderful, when we consider that for several successive months there is a continued, and often very severe irritation in its immediate neighbourhood. The pain attendant upon the cutting of merely one tooth, in our adult years, may teach us to form some idea of the suffering of an infant during the period of its first dentition.

Now it is a common observation that almost all head-aches are most promptly relieved by whatever stimulates the kidneys to throw off a quantity of urine. When this takes place, the system feels at once relieved of a load or oppression which seemed to clog all its energies, and the mind as well as the body becomes more light and vivacious. We are thus led by the experience of our own feelings, to anticipate the benefits which must attend the stimulation of the kidneys in the various affections of children arising from teething.

On the whole, we do not think that there is a more important sign to be attended to in the management of children, during the first two years of their life, than that afforded by the state of the urinary secretion.

Before closing these remarks, we may allude to the notable effects which diuretic medicines sometimes exert on the progress of hooping-cough. The administration of nitred drinks and of

minute doses of digitalis, seems often to promote the crisis of the disorder in its earlier stages; and, in its more advanced and chronic form, the use of tincture of cantharides has been recommended by Dr. Watts and others, as one of the most efficient antidotes. The excitement of the urinary viscera produces a powerful revulsion on the neurosthenic condition of the gastro-pulmonary apparatus, and thus seems to act as a derivative of the morbid action.

In fine, the kidneys become, in numerous cases of disease, the seat of an active eliminatory process, of which the skilful physician will avail himself in the treatment of dentition and of various other affections to which children are especially liable during the first two years of life.

Bulletin Gen. de Therapeutique, and Med. Chir. Review, Jan. 1840, *p.* 209.

4.—TREATMENT OF ACUTE RHEUMATISM BY OPIUM.

By Dr. Corrigan.

The most important rule to be remembered in employing opium for the cure of acute rheumatism is, *that full and sufficient doses* shall be exhibited. I have heard of opiate treatment having disappointed some who have tried it. On inquiry, I have learned that in those cases it has been given only to the extent of a grain every fourth or every sixth hour. This is not "the treatment of rheumatism by opium;" it is making the patient worse than before—it is inflicting on the patient the mischief arising from the stimulant effects of the drug, and witholding from him all the benefits of its sedative influence. The opium should always be increased in dose, both in frequency and quantity, until the patient feels decided relief; and should be then kept up at that dose until the disease is steadily declining. The first indication that tells the practitioner he has reached the proper dose, is the statement of the patient, who in reply to an inquiry as to how he has passed the night, probably says that he has not slept, but that he is free from pain and feels comfortable. This effect having been attained, the opium may then be continued in repetitions of the same dose as to frequency and quantity. Clarke's Case, No. VIII. shows the rapidly good effects of the large doses. A relapse set in: he got two grains of opium every third hour, uninter-

ruptedly for twenty-four hours. He took sixteen grains of opium within twenty-four hours, and the relapse was suddenly cut short. In Rooney's Case, No. III. in the first day eight grains of opium were administered; the dose was then increased to twelve grains within the twenty-four hours for the second, third, and fourth days; and on the fifth day he was taking bark. In Dr. Aldridge's Case, the quantity taken in a fortnight amounted to about 200 grains. I think about ten or twelve grains in every twenty-four hours will be found the average quantity required. The tolerance of the remedy is a remarkable feature in the treatment, and may, I think, be fairly adduced as an argument in favour of its propriety. The head is not affected by the large quantity of opium administered. This is remarkably shown in Dr. Aldridge's Case, No. VI., where the head was not injured by the opium, even though there had been previously a tendency to derangement of cerebral functions in all previous febrile affections. There is another singular circumstance connected with the exhibition of the opium. It is the occurrence of diarrhœa while the patient is using the opium even in full doses; in some instances, the diarrhœa becoming so troublesome as to require starch enemata, or chalk mixture, with kino. It is seldom necessary to purge the patient while administering the opium; indeed the pains are sometimes brought back by the administration of a purgative, either from the patient catching cold in rising from the bed, or from the irritability produced by the action of the purgative. The patient's bowels, if they have not been constipated in the commencement of the attack, may be not only safely, but with benefit, not disturbed more than once in two days.

In most cases, Dr. Corrigan applies embrocations to the affected joints—warm spirit of turpentine, or camphorated spirit, or simple decoction of poppy-heads, or when only slight stiffness with little or no swelling remains, a liniment of equal parts of ol. terebinth, and ol. camphorat. with one drachm of sulphur to each ounce of the liniment.

There arises in the progress of a case of acute rheumatism a stage that is sometimes perplexing. The fever is very much abated, the skin is covered with almost constant perspiration, even sometimes to the degree of producing a miliary eruption, and so profuse in quantity, that the patient, when the clothes

are raised, steams like one in a vapour bath, and the skin becomes clammy, pale, and soddened; the pains become erratic, and the pulse becomes quicker and smaller: in such a stage, and with these symptoms, the conjunction of sulphate of quinine with opium is the combination that I think will be found most beneficial. K.'s Case, No. V. is an example of such as I have described, and shows the good result of the exhibition of the combination of quinine and opium in that particular stage. Another remedy, of considerable efficiency when the acute stage is passing away, is the mist. guaiaci. The preparations of guaiacum have been an old and favourite popular remedy in rheumatism, and have fallen, perhaps undeservedly, into comparative disrepute. As it is not my wish to travel beyond the acute form of the disease, I shall make no observation on the use of the hydriodate of potass, or of any of the remedies adapted to rheumatism when passing into a chronic state. There is one form of acute rheumatism in which the opiate treatment will cause disappointment, should the practitioner trust to it alone. It is that form which we sometimes meet with in persons whose habits of living, and perhaps hereditary tendency, give a predisposition to gout, and in whom, when rheumatism does appear, it is not genuine rheumatism, but a combination of gout with rheumatism.

Dub. Med. Journal, Nov. 1838, *and Med. Chir. Review, Jan.* 1840, *p.* 266.

We, in common no doubt with almost every practitioner, have frequently met with the same effects of opium in producing diarrhœa, which is the more singular, when we remember the almost invariably opposite effect of this drug: but it has generally arisen from the *continued* use of it for some time, when no doubt the sphincter muscle loses its power from the effects of the opium upon the nervous system.

Whilst we are on the subject of Rheumatism, we cannot help referring our readers to the admirable treatment adopted with so much success by A. L. Wigan, Esq., of Brighton, and since the publication of his article, by ourselves, viz.—the employment of the Powdered Colchicum Root, in large and rapid doses.

Mr. Wigan says—

The powdered root of colchicum is the specific on which I depend. It is an old remedy, but the mode of administration is new, and entirely my own. On no one of the many occasions on which it has been used, have I seen the slightest injurious consequence; and I do not now hesitate to pronounce it the most easily managed, the most universally applicable, the safest, and the most certain specific in the whole compass of our opulent Pharmacopœia; the mode of exhibition being an effectual regulator of its influence, adapting it accurately to the varying temperaments of different patients. Administered in the way I prescribe, and with the limitations stated, I feel quite confident that no one will be disappointed in the results to be expected from it. No doubt there may be complications of this disease, which may render other measures advisable: cases of plethora, or of inflammatory action, so decidedly marked as to leave no doubt of the propriety of taking away blood. It may be so; I have seen none such, at least none in which I have thought it necessary to use the lancet, though I see no disadvantage in erring on the safe side, and just relieving the tension of the blood vessels by moderate depletion. Large bleedings I believe to be always injurious; they seem to me to aggravate the tendency to metastasis. The cases which require bleeding must be extremely rare, since not one has presented itself to me during the last six years. I am sorry to say, that when this disorder has gone on for some time, when it has been allowed to spend its violence on the articulations, and especially those of the vertebræ (the most frightful form of the disease,) during a fortnight or three weeks, the remedy is by no means so effectual. Still it has a great influence in alleviating the pain and in shortening the duration of the malady, although the transition from intense suffering to perfect ease is less sudden and decided. I have uniformly remarked, that the more violent the attack the greater the number of articulations under its influence—the higher the fever, and the more general the disturbance, the more speedy and the more perfect is the cure. Were I to give the details of some of the cases, I should not obtain belief, so much would the statement resemble a quack-doctor's advertisement. I will, however, venture to assert, that on many occasions I have seen the patient one day unable to turn in bed, with ancles and wrists so swollen and inflamed,

and even the vertebræ affected to such a degree, that he has entreated me to walk gently, as the mere shaking of the bed produced an agony of suffering; I have seen, I say, a patient in this state, and thirty-six hours afterwards not only perfectly free from pain, but able to walk across the room without assistance.

If the bowels be loaded, I begin by an enema of decoct. aloes, but this does not delay the use of the colchicum. The dose, eight grains every hour, taken in the medium most acceptable to the patient—plain water, sugar and water, apple tea, ginger tea, or other analogous fluids, changing them from time to time, even with the successive doses, if necessary, according as the stomach is more or less irritable, or the palate more or less capricious. The point of saturation, as I call it, (for want of a better term,) is very uncertain, varying so much with different individuals, that although the usual quantity is eight or ten doses, I have known some take fourteen, and others unable to bear more than five. In every case it is to be repeated till active vomiting, profuse purging, or abundant perspiration take place; or at least till the stomach can bear no more. If a slight nausea comes on after three or four doses, (I have never seen it so soon as the fourth,) a quarter of an hour's delay may be allowed. A lump of sugar, dipped in brandy or eau de Cologne, a wine-glass of soda water, or any thing else the patient wishes for, in small quantity, may be given. Sometimes a small slice of lemon kept in the mouth will turn away the nausea, and enable him to bear a few more doses; the main object in all cases being to get into the stomach the largest quantity that it can be induced to receive. Even two doses taken at once would be rejected by a patient, who will thus gradually bear a dozen. The most usual course of things is this: at the end of the sixth or seventh dose a slight nausea comes on; by keeping quite still, turning away the thoughts by conversation, or listening to an amusing book, coaxing the palate with a slice of lemon, a clove, or some such thing, three or four more doses can be received, when the disgust becomes perhaps unconquerable. After this there is generally sound sleep, with occasional nausea on waking. The pain ceases, but the more active effects of the colchicum do not take place for some hours after the last dose. Distressing as is the state of the patient when under the full influence of the medicine, it still does not

exceed an ordinary sea-sickness; and when this has been endured for a few hours, it is succeeded by the Elysium. The inflammation of the joints subsides, and they resume their natural size with miraculous rapidity. The acidity of the perspiration ceases, as well as the peculiar odour, which enables the experienced practitioner to recognise the disease on entering the room, before he has asked a single question. As soon as a cup of souchong tea can be retained, a sound sleep comes on, from which the patient awakes perfectly well. When circumstances will admit of it, I prefer to give a breakfast of bread and butter and tea only, very early in the morning, and two hours afterwards commence the colchicum. No more food will be required that day, but tea may be given abundantly, with bread sopped in it, if required. It will be well to indulge the returning appetite very sparingly on the day following, on which, however, we may allow a small snap of devilled meat, and rice boiled plain as for curry, which will generally be the things most acceptable to the stomach. A small quantity of good curry itself is not objectionable to those who have been accustomed to that luxury. In the subsequent treatment I have no reason to think that any precaution is necessary. The patient may resume his ordinary diet as soon as the appetite dictates. I have never seen a relapse.

The colchicum, it is obvious, should be preserved with care. The best mode, I believe, is to grind it, at the proper season, with twice or thrice its weight of fine sugar, into an impalpable powder, when, should it accidentally become damp, it is safe from injury.

It is better, if possible, that the patient should not be aware of the direct effects expected, until they take place, in order that the imagination may not anticipate and interfere with the process.

Lancet, and Med. Gazette, June 30, 1838; *and British and Foreign Med. Review, Oct.* 1838, *p.* 556.

5.—THE USE OF ACETATE OF MORPHIA IN ARTHRITIS, AND NERVOUS AFFECTIONS. By M. Vincent Cristin, Physician to the Hospital of St. John, Turin.

The following is Dr. Cristin's method of administering the acetate of morphia in these affections. Dissolve one grain of

acetate of morphia in four ounces of distilled water, and add one ounce of syrup of gum arabic. A spoonful of this mixture to be taken every hour. When the pains are relieved, or sleep is about to commence, it should be given every two hours only, or suspended altogether; depending upon the narcotic effects produced. During its administration the patient should avoid fluids.

A woman, aged sixty, was afflicted with arthritis in the extremities; there was acute pain upon motion, hard pulse, burning heat of skin, &c. &c. The acetate of morphia relieved the pains, procured sleep, removed the fever, caused profuse perspiration and diarrhœa, with abundant secretion of urine. Opium excites perspiration, but diminishes the other secretions. Acetate of morphia is therefore the preferable agent.

Nervous pains, such as frontal neuralgia, sciatica, cephalalgia, and syphilitic pains, have all yielded to this remedy.

Repertorio Medico-Chirurgico del Piemonte, and British and Foreign Medical Review, Jan. 1840, *p.* 252.

We also can bear testimony to the good effects of this remedy in almost all neuralgic cases, but it seems necessary to keep the patient under the complete influence of the medicine for a considerable time. We have frequently been obliged to keep up the effects for several days on the small nerves of the face, &c. and for a much longer time, even weeks, in sciatica and other large branches of nerves, but have seldom failed of success eventually, except in old and very obstinate cases. Dr. Cristin gives only the tenth of a grain of the acetate every hour, but we generally have found it necessary to give much larger doses without any other bad effect than severe sickness, which, however, is easily abated by creosote, or stimulants, as the spt. ammon. comp., &c. We give one-fourth or one-sixth of a grain every hour or two, in severe cases, till the system is completely under its influence, and then keep up its effects by smaller doses, and less frequently repeated.

6.—ON THE USE OF ARSENIC IN CHOREA.

By D. M. Reese, M.D., Prof. of Medicine, Albany College, New York.

These results of experience have led me successively to test the comparative merits of the various other remedies which have been reported as successful, as the rubigo ferri, cuprum ammoniacum, sulphate and flowers of zinc, oxide of bismuth, camphor, electricity, nitrate of silver, &c., and after very considerable opportunities, I have learned to rely upon the tonic powers of *arsenic* in preference to any and all other medicines of this class; and having never known it to fail in effecting a radical and permanent cure, I feel great confidence in recommending it to the profession in all those cases in which the tonic plan is decided upon, either with or without preliminary medication. The arseniate of potash, as existing in the formula of Fowler's solution, is the preferable mode of exhibition, and its dose should be graduated according to the ability of the stomach to receive it without nausea. In the most numerous subjects, varying from seven to sixteen years of age, six or eight drops should be given night and morning, gradually increasing its dose and frequency. Adults may take ten drops increasing to fifteen, and even twenty, three times a day, and in all cases it should be persevered in for a week or more after all the spasmodic symptoms have disappeared. The only unpleasant effects are nausea or vomiting if the dose be too large, and occasionally a tumefaction of the head and face if too long persisted in. On either of these effects being produced, the medicine should be discontinued for a few days, and then resumed in a diminished dose. With these precautions, I have, for a number of years, employed this remedy in over two hundred cases of chorea, without ever having witnessed any of the untoward results upon the constitution, said to follow the exhibition of arsenical preparations. So far from any of the sequelæ, which are apprehended by the alarmists, my patients have under its use, not only recovered from chorea, but many of them seem to have since acquired vigorous constitutions and improved health. I have used it in infancy, in delicate females during pregnancy, and under circumstances supposed to forbid its employment by many, and I have never once seen cause to regret its exhibition. But while I thus dwell upon the value of arsenic as a remedial agent in chorea, I have not failed to superadd auxiliary treat-

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ment, and hence nutritious diet, active exercises, cordial drinks, and the cold bath, both plunging and showering, have all been usefully employed. And in the examples, comparatively few, in which counter-irritation has been indicated, I have obtained most favourable results by the aid of rubefacients, blisters, setons, issues, and the eruption of the tartrite of antimony, applied to the spine. But I have never had occasion for active depletion even by purgatives, although when constipation exists in connexion with chorea, or where there has been present the suspicion of worms, I have interposed a cathartic or anthelmintic, while, at the same time, persevering in the tonic treatment.

New York Journal of Med. and Surg., and British and Foreign Medical Review, Jan. 1840, *p.* 269.

7.—ON THE INHALATION OF CONIUM AND IODINE IN TUBERCULAR PHTHISIS PULMONALIS.

By Sir Charles Scudamore.

The author of this paper states that he has tried the following method of inhalation in phthisis and bronchitis, sufficiently to enable him to recommend it very strongly to the profession. He denies that the inhalation of conium and iodine in either of the above named diseases, irritates the lungs: on the other hand, he says that the patient looks forward with pleasure to the time when the process is to be repeated. He disagrees with Laennec in some points, and thinks that the *early* stages of phthisis may be cured by this mode of treatment, and goes on to relate cases where a cavity was clearly indicated, and where pectoriloquism was most evident, and yet the patients recovered by means of inhalation. Indeed some of his cases were so clearly cases of incipient phthisis, according to his description, that we cannot help placing dependence upon his treatment in some measure, however contrary to the common feelings of the profession. Some, indeed, relapsed and eventually died after an interval of some years; others have not hitherto relapsed,

and are yet in perfect health. The author then goes on to relate his method, and the ingredients of his mixture, combining however, at the same time, other treatment of a general kind. He says—

I cannot, I think, too often repeat, that while I claim for the inhalation so great a regard, I consider it to be only one part of the treatment required. The additional constitutional means embrace a very wide consideration. The local external treatment of the chest by proper means of counter-irritation, and by lotions and frictions, is a very important part of management.

I have never seen, from an active remedy, so large a proportion of benefit, with so small a proportion of disagreement and inconvenience, as from the inhalation of iodine and conium. The method also is to be considered: and I may here remark, that many excellent remedies have fallen into odium and neglect, at different periods, from the error or abuse of their application. I am careful that all the ingredients which enter into the composition of the inhaling mixture are perfectly pure. I recommend the following formula:—

℞ Iodinii puri; Iodid. Potassii, aa. gr. vi.; Aquæ destillat. ℥v. ʒvi.; Alcoholis, ʒii. M. fiat mistura, in inhalationem adhibenda.

I now always prefer to add the conium at the time of mixing the iodine solution with the water; and it should be a *saturated* tincture, prepared with the most genuine dried leaves. In the commencement of the treatment, I advise very small proportions of the iodine mixture; for example, only from half a drachm to a drachm for an inhaling of eight or ten minutes, to be repeated two or three times a day. Of the soothing tincture, I direct half a drachm—which I usually find sufficient; but it may be increased if the cough be very troublesome. I soon augment the quantity of the iodine, and progressively from ʒj to ʒiv; but also, then prolonging the time of inhaling, I divide the iodine dose, putting two-thirds at first, and the rest after the expiration of seven or eight minutes. If the temperature of the water be measured by the thermometer, it should be 120° F'ahr. as being the most favourable for volatilising the active principles of the iodine and conium, mixed with some watery vapour; but the approximation will be sufficient, if equal

parts of boiling and cold water be used; with which the inhaler is not to be quite half filled. Invariably, however, care should be taken to prepare the bottle for this heat of water, by first washing it out with some tepid water.

During the process, the inhaler should be kept immersed in a jug, containing water of rather higher temperature than 120°.

It is of the utmost importance that the strength of the inhaling mixture should be considered in relation to the particular case. The feelings of the patient will be a great guidance; he should have the sense of relief, and not of inconvenient irritation, produced. The cough arising occasionally during the process is not an objection; but if it be more irritable afterwards, it shows that it has been used too strong. There is a certain stage of the tubercular disease, when over-excitement, from employing the iodine in too great quantity, might hurry on the softening process too quickly. It is here that the treatment demands the greatest judgment. In every case one of the following events may be expected to happen: either that the tubercular irritation will be arrested and gradually removed, be arrested and suspended, but not cured; or pass on to the softening process, which terminates in the production of an excavation. In all these different states of disease, I advise the inhaling treatment to be employed.

It is my belief that this direct and very accurate mode of applying this powerful medicine, iodine with conium, induces a new action in the vessels and nerves of the lungs, which is calculated to supersede the diseased action. I also assign much effect to the stimulation of the absorbents, and have been led to believe that tubercles have in this manner been actually removed.

With a well-constructed glass inhaler I find all the satisfaction I can desire. The bottle should be large, and the tubes capacious. The one issuing from the bottles should be upright, passing off in a gradual slight curve, so that the vapour shall not be much cooled in the course of its progress; the ingress tube should dip very near to the bottom of the bottle, that all the air so introduced may receive impregnation. The patient must be desired to inhale by using at the same time suction and a pretty full inspiration, then to drop the under lip from the mouth-piece and make a free expiration; so conducting the process by pausing, and, if he like, little suspensions, in order

that he may not experience any of the fatigue which would certainly happen if breathing quickly, or using an inhaler with small tubes, or with too much water in the bottle.

London Medical Gazette, Feb. 7, 1840, p. 756.

8.—ON THE PREVENTION OF TUBERCLES.

In a letter addressed to the Royal Academy of Medicine, M. Coster announces that, from certain experiments which he has made, he hopes to prove,

1. That it is possible, even in the face of predisposing causes, to prevent the development of the tubercular diathesis.

2. That even where the formation of tubercles has commenced, their progress may, in a great number of cases, be arrested.

The following are a few of the experiments upon which M. Coster has built up his hopes :—

Two years ago he placed a number of dogs, rabbits, &c. in the circumstances most favourable to the development of the scrofulous diathesis. Thus, many of the unfortunate animals were shut up in dungeons, without light, incapable of moving, and exposed to a moist cold by means of wet sponges which were hung up in the cages. Some of the animals placed in these conditions were fed on their ordinary diet; others were fed with ferruginous bread, containing ½oz. of carbonate of iron to the pound. All the former became ill, the greater part tuberculous, but not one of those fed on the bread containing iron presented a trace of tubercles.

Bull. de l'Acad., and Lancet, Feb. 15, 1840, p. 772.

9.—ON THE INFLUENCE OF MALARIOUS ATMOSPHERE in the Prevention and Cure of Phthisis Pulmonalis. By HORACE GREEN, M.D., of New York.

DR. Green relates several cases which seemed to be phthisical, and which recovered in a malarious atmosphere. But the most experienced practitioner may often be mistaken in his diagnosis in the early stages of this fatal malady, and therefore we should be cautious in pronouncing a case to be consumptive, unless

it have advanced sufficiently far. The following observations, however, seem valuable, and based on facts.

Whitehall, in Washington County, N. Y., is about twenty miles west of Rutland, and contains about the same number of inhabitants. It is situated at the mouth of Wood Creek, which empties into Lake Champlain. This town is bounded on one side by low, marshy grounds, which are filled with stagnant waters, and from which, during the summer months, malarious exhalations are constantly rising; producing, in the vicinity, an abundance of intermittent and remittent fevers. Indeed, so common are intermittents here, that the remark has become proverbial: "To go to Whitehall, is to get the ague and fever." Yet consumption is seldom or never known in Whitehall. I have been at much pains in making inquiry, and I have not been able to learn that a single unequivocal case of *indigenous* phthisis has occurred in Whitehall during the last ten years. All the other lake towns in that region, so far as I have been able to ascertain, where intermittents prevail, are equally exempt from pulmonary phthisis. From these facts, and others which I shall mention, I have been so well convinced of the incompatibility of consumption and intermittents, that, for several years, I have been in the practice of advising my consumptive patients to visit places where an aguish atmosphere prevailed. In many instances the result has been decidedly beneficial.

After relating several cases, he gives us that of his friend, Dr. Harris:

In November, 1836, Dr. H. caught a severe cold, which was followed by a cough, and, in a week or two, with an expectoration of purulent matter. His cough continuing about three weeks from the attack, hæmoptysis supervened, and this was followed, for some time, with a bloody expectoration.

These symptoms of phthisis becoming more alarming, as the winter advanced, he relinquished his practice and sailed for Mobile, early in January, 1838. So unfavourable did his symptoms appear, at this time, that one of the oldest and most experienced physicians of this city remarked to me, after taking leave of him, that "the Doctor would never live to return to New York."

On the 4th of February he arrived at Mobile, where he remained several months; but went to New Orleans the June following, and from thence to Indiana; where, in August of the same year, he had an attack of ague, which continued for some time. About eight months since, he returned to New York in confirmed health, and renewed his practice.

This very day, November the 20th, Dr. Harris visited me, at my office, in good health, and related to me the facts in his case.

I could enumerate other cases which have come under my own observation, but will only allude to one other, the history of which was communicated to me by my friend Dr. Woodward, formerly Professor of Surgery in the Vermont Academy of Medicine. Sometime since, a young woman labouring under consumption,—apparently in its confirmed, secondary stage,—was brought to Castleton, the residence of Professor Woodward, to die among her friends. Her mother resided upon the borders of a small marshy lake, in the westerly part of the town,—a neighbourhood where all new residents are sure to be affected with intermittent fever. Thither she was carried, and Dr. Woodward, was called to attend upon her. He found her, as he informed me, exhibiting every symptom of ulcerated lungs. Indeed, so apparently hopeless was the case, that the medicines he prescribed were merely palliative; and he informed her friends that no permanent benefit could be expected, in her case, from the adoption of any means.

Several months after this, being in that neighbourhood, he learned, with surprise, that his patient was recovering; and, on calling to see her, he, in fact, found her nearly restored. Her cough, and every other unfavourable symptom had left her. Her health since has been permanently established.

Dr. Woodward gave it as his opinion, that in this case,—as well as in some other similar ones with which he has been familiar,—the persons were restored to health by breathing an intermittent atmosphere.

New York Journal of Med. and Surg., Jan. 1840, *p.* 73.

10.—PRECIPITATED CARBONATE OF IRON.

The precipitated carbonate of iron is perhaps as good a preparation for internal use as any other, and the best mode of

exhibiting it is, in my opinion, at the moment of precipitation, for a knowledge of which I feel indebted to my friend, Sir James Murray. The formula is to add to one drachm of the bi-carbonate of soda, dissolved in four ounces of spring water, a drachm of muriated tincture of iron. The draught to be taken during effervescence, and repeated thrice a day. Although the quantity of carbonate of iron thus formed is not considerable, yet it is in such a state of minute subdivision, and combined with a solution of muriate of soda equally minute, (the saline most congenial to the system of red-blooded animals, as it renders the hematosine active and vivifying,) that I always found it to answer the object of a chalybeate thus given much better than the large doses of from one to two drachms of the carbonate of iron, that have of late been recommended, and which, I found, few stomachs could bear. If there is ulceration, it is very generally improved by the same medicine; and I have seen many instances of that form of malignant disease termed lupus, which attacks the face, perfectly cured by the conjoined use of the internal and external exhibition of this preparation of iron. I formerly thought the phosphate of iron possessed superior advantages to the carbonate, administered internally; but now I think the carbonate given during precipitation answers every purpose of a chalybeate, without causing any derangement of the stomach.

Mr. Carmichael's Lectures.—*Dublin Med. Press, Mar.* 4, 1840, *p.* 153.

We refer our readers to an elegant preparation of iron, called "the Citrated Aromatic Wine of Iron," by Mr. Gore, of Limerick, which, we think, is not much known to the profession, but which, from its pleasantness, might be more generally given to delicate patients. Mr. Gore says, that

It has been improperly termed *tinctura ferri aurantiaca*, though a *vinous* preparation of the per and proto-citrate of iron. The formula for its manufacture is contained in the *Pharmacopœia Wirtembergica*, published in 1798. The preparation itself possesses the most agreeable odour and taste of any medicinal compound ever introduced into practice. It is aromatic, carminative, and tonic, and I have no doubt will supersede the preparations in general use, when once it has been fairly tried.

Four ounces of iron filings, or, what I think would be better, iron wire, are put into a stone mortar; with these are beaten up four Seville oranges, deprived of the seeds. Two or three days are allowed them to stand, having been placed in a wide-mouthed bottle; to them are next added ten ounces of Madeira wine, and two ounces of spirit of orange peel. After digesting for a fortnight the entire is expressed and filtered. A fine dark-coloured aromatic fluid is the result, highly chalybeate, and exceedingly agreeable, not only as to the taste left in the mouth, but the sensation it produces in the stomach. It is a compound of proto and per-citrate of iron, with perhaps a little tartrate from the wine, sacharine matter, mucilage, and essential oil.

Three parts of this preparation, with one of syrup of smilax aspera, forms a compound which will not be rejected by the most delicate stomach. I have given it to children and young persons in various forms of disease with debility, and I have never found it disliked or rejected, but its repetition rather looked for. In strumous habits, where an excess of the white tissues constitutes a congenital evil—in passive uterine hæmorrhage; anasarca from general debility—chlorosis—malignant disease, in which iron is so highly extolled by Mr. Carmichael, and in those diseases which arise from a general deficiency of tone, this preparation would seem to me to be of exceeding utility, from its agreeable and chalybeate qualities.

Where the secretion from a relaxed state of the mucous membrane in chronic bronchitis exists, I have no doubt but it will be found efficacious, combined with Ipecacuan wine.

From having used this remedy repeatedly, as I obtained it from Mr. Stevenson's Limerick Medical Hall, where all that is new and valuable in pharmacy may be obtained, I can confidently recommend its use to the profession, and I have been led to do so because I consider it a valuable addition to the prescriber, and because I wish to bring it under the notice of Mr. Carmichael, who has spoken in high terms of a preparation recommended to him by Sir J. Murray, from the facility with which it can be retained upon the stomach—I mean carbonate of iron, in the act of precipitation, as made by dissolving bi-carbonate of soda and muriated tincture of iron in water, which is taken in a state of effervescence. As the lemon contains a larger quantity of citric acid than the orange, I would suggest the addition of

one lemon in the formation of the quantity before ordered, which I think might be an improvement as well as an addition.

Dublin Med. Press, April 29, 1840, *p.* 290.

II.—OBSERVATIONS UPON THE EFFECTS AND MODE OF APPLICATION OF REMEDIES. By JONATHAN OSBORNE, M.D., of Dublin.

HEMLOCK.

Even the extract, imperfect as it is, has an effect in appeasing the pain in cancerous affections of the uterus, and that without exerting sensible narcotic powers, which almost excuses Stoerk for the error into which he fell in proclaiming it as a cure for cancer. I have applied it externally, and given it in such cases sometimes without effect, but sometimes with remarkable alleviation of pain after opium had failed; and never observed any ill effects except in one case of a woman labouring under scirrhus uteri, who obtained great relief from pain by it, but when the dose was increased to four grains three times daily, had headache, black motes in vision on sitting up, and saw two persons instead of one; all which disappeared when the remedy was discontinued.

The uncertainty of the extract may be shown by an easy experiment. The conine, which in the process of decomposition is partly resolved into ammonia, is in this preparation always, according to Professor Geiger, more or less deficient, and often entirely absent; and to prove that this decomposition has taken place, it is only necessary to add some water of caustic potash, when the ammonia may be distinguished by the odour, and by holding over it a rod dipped in muriatic acid, whereupon the fumes formed by the muriate of ammonia are rendered visible. This experiment has shown ammonia in every specimen of the extract in which I tried it.

Wishing to secure the fresh plant in a state of preservation for winter use, I resorted to a plan which I believe will be found applicable to the preservation of plants generally for medical purposes. I caused the leaves and smaller stalks, fresh gathered before flowering, to be pounded up and intimately mixed with an equal weight of treacle. This mixture, of the consistence usual in an electuary, continued for several months until used, without showing the slightest tendency to decompose

or to change any of its sensible qualities. This can only be ascribed to the treacle,* and I suggest this as a very useful mode of preserving as well as of exhibiting those vegetable productions, the efficacy of which depends upon their freshness. I gave this preparation in six grain doses to several patients, in whom I thought it might prove serviceable, but its effect was quite different from what I had anticipated. In every instance it acted as a purgative, producing full dejections, without either nausea, tormina, or narcotic symptoms.

We cannot expect that in regard to the place of growth, uniformity will ever be attained, but in regard to the part of the plant to be used, it is manifestly of great importance that a proper selection should be made. I think that, for external use, the entire plant, preserved in the way I have mentioned, would answer well, being both cheap and convenient; but that for internal use the seeds should be preferred; 1st, on account of their uniformity. Let it be remembered that seeds are, of all parts of plants, the least liable to variation in their mode of growth, structure, and chemical composition, and that they are the least dependant on artificial modes of drying for their future preservation, seeing that that process is performed by nature herself on fixed and uniform principles; and on this head I cannot do better than refer to the seeds of colchicum, which have enabled us to act with that plant, as previously, when the root alone was employed, might have been attended with danger: 2ndly, because the seeds of hemlock contain more of its active principle than any other part. For this I refer to the experiments of Professor Geiger, who found that six pounds of the fresh seeds contained about an ounce of conine, while a hundred pounds of the plant only afforded a drachm.

BELLADONNA.

There is one property of belladonna, which I mentioned in a medical report of Sir Patrick Dun's Hospital in 1831, and which it has proved itself to possess in every instance, without exception, since that time; so that it is unnecessary to detail

* I had an opportunity of seeing an open vessel of treacle which was known to have lain exposed to the air in a store room for years, but which was the same in quantity and quality as when placed there. It neither formed crystals, admitted the growth of cryptogamous vegetables, nor evaporated. Early this summer, I placed a vessel of treacle exposed to the open air; it now, November 26th, remains exactly as I left it.

cases on the subject. It is this, that *it causes an immediate cessation of the migratory or flying pain of rheumatism, without producing any effect on the fixed pains.* In this way it acts like a charm both in acute and chronic cases, and when it is recollected that in acute rheumatism, especially, the greater part of the suffering, and that most refractory to ordinary treatment, is the perpetual shifting of pain along the direction of the muscles from one joint to another, its value in all such cases will at once be admitted. The dose I give is one-third of a grain thrice daily, increased to half a grain every third hour. After trying various combinations, I prefer to give it in simple extract of gentian, as much as is sufficient to secure its accurate division into pills. Having observed its efficacy to be confined to the pains shooting along the direction of the muscles, and that any abatement of pain which it produces in neuralgia, or where the pain pursues the course of the nerves, is of a very inferior degree, and attended with great uncertainty, it appears to me that it acts on the muscular fibre belonging to the voluntary muscles as on the iris, and by stopping the spasm which is always present in severe cases, causes a cessation of the peculiar pain. This kind of pain always resembles fatigue, causing general restlessness and inability of remaining long in one position; and suggests very much the sensations experienced after excessive muscular fatigue, when the spasms, not of entire muscles, but of fibres, prevent sleep, while at the same time they produce a feeling of intolerable weariness.

EMETICS OF IPECACUAN IN HÆMORRHAGE.

Having already (Trans. of the Association, vol. v.) stated the uniform success attending this treatment, I should not repeat it here, were it not that some authors, who have subsequently treated professedly on diseases of females, have entirely omitted to mention it. I have only to add, that with me it has never yet failed, except when the progress of the case afterwards proved the formation of scirrhous or cancerous structure. The remarkable effect of emetics of ipecacuan in restraining hæmorrhage, is not confined to this organ. In a case of violent epistaxis, in which several remedies were ineffectual, I tried it while preparations were going on for plugging the posterior nares, and with success, so as to render that measure unnecessary. In hæmoptysis, I am unable to add to the facts already

known respecting its efficacy, being of opinion that hæmorrhage from the lungs is always salutary, and that the practice of giving the mineral acids, &c. to discourage it in phthisis is injurious. A very considerable benefit is generally perceptible, after the vessels of the diseased lung have been unloaded by this discharge. When, however, a violent hæmorrhage takes place from the lungs, and blood is expectorated in such quantities as to endanger life, then all our efforts must be directed to its suppression. In a late case (not phthisis) I failed with the emetic, but as I lost sight of the patient subsequently, I am unable to pronounce as to the cause of the hæmorrhage, and therefore as to the cause of the failure.

Dublin Journal of Medical Science, Jan. 1840, *p.* 466.

In the following article also, will be found some interesting observations on Ipecacuan in hæmorrhage: a treatment, which we believe has not been generally adopted in this country, and indeed, not heard of by many general practitioners, although much used in some parts of the kingdom.

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12. — OBSERVATIONS ON THE USE OF IPECACUAN IN INTERNAL HÆMORRHAGIES. By W. A. Trenor, Esq.

It appears that Dr. Osborne published five cases of menorrhagia in the Transactions of the College of Physicians, in 1828, and soon afterwards, Mr. Trenor tried Ipecacuan in similar cases, and with equal benefit. Ever since that time, it seems to have maintained itself in the good opinion of numerous medical men. Mr. Trenor says:

I was called very early in the morning to see a young gentleman about 20 years of age, very robust, being six feet four inches in stature, and well made in proportion; had always enjoyed excellent health. At the time of my visit, about four o'clock in the morning, I found this young man sitting with his feet upon the hearth-stone, and his hands immersed in a bason of cold water. The floor round where he was sitting was covered with florid, frothy blood, and a large vessel in the room almost filled with it. He felt faint and suffocating; at times

finding his inspirations very difficult, from the great quantity of blood which was literally flowing from his mouth. His face was a little flushed, which was naturally ruddy; his voice weak, and indistinct; pulse quick, small, and rapid; could not bear the slightest attempt at the reclining posture; called for air, and had all the windows and the door open. This was no case for venesection, and to wait for the sedative influence of the acetate of lead and opium, did not appear safe; it was instantly determined in my mind to use the ipecacuan, of which I gave ten grains in a little water. It was incredible the relief which followed the nausea, and some slight efforts to vomit, which this dose of the medicine excited. The hœmoptoe now abated; respiration became more easy; and in some little time the reclining posture could be indulged in. This young gentleman after some months recovered perfectly, went to America, where I understand he suffered severely from Asiatic cholera, but ultimately recovered from it. Dr. Crampton saw this young man with me at his father's residence in Simmonscourt.

The second case of this kind occurred in a young gentleman of tall and slender figure, seldom sick, yet of delicate constitution. He was in his 21st year; had been confined to the house for a few days, with what was considered catarrhal fever, got from travelling for some miles on the outside of the coach. Like the former case it was very early in the morning, three o'clock, when the hæmoptoe came on.

I found him supported erect in the bed, with both windows open; he could scarcely speak. The quantity of blood, though very great, was not anything like the quantity in the former case, yet the prostration was much more alarming: countenance was contracted and death-like; the anxiety of manner very great. The strength had failed, and the interval between each expectoration of blood had become longer, yet the breathing was becoming more oppressed, and the distress more urgent. In this case the ipecacuan was given in doses of two grains every fifteen minutes in a little cold water. He had not long taken the second dose before some nausea was felt; and with it the respiration became less oppressed. The third dose of the medicine increased the nausea to some effort to vomit, but the stomach did not empty itself. The appearance of blood now decreased, and soon disappeared, nor did it return for several weeks, and was then very moderate in quantity. This case ended very

differently from the former, as it rapidly terminated with phthisis. Dr. Marsh attended this young gentleman through the whole of his illness with me from the day after the hæmorrhage.

The cause of the hæmorrhage in these two cases was very different, yet the ipecacuan was a most salutary and efficient means in each in restraining the flow of blood.

In another case, somewhat similar to the above, with quick pulse, sputa almost all florid blood, and the right lung apparently gorged with blood, the ipecacuan was given with equal advantage. It was given in grain doses every half-hour, until the patient had taken three or four grains.

If any nausea was felt, the patient was to lengthen the intervals; this he was reconciled to do, as he said he would prefer being sick rather than have the bleeding continued. In this way he took twenty grains of hippo in the course of thirty hours. No vomiting came on, but much nausea; the blood disappeared from the sputa. I told him now to leave town for some weeks, and take his pills with him: this he did, and although he attended closely to business, and was often exposed to vicissitudes of weather, he has had no return of the hæmorrhage.

The following case of menorrhagia seemed also to be benefitted by the same mode of treatment, according to Mr. Trenor, although we confess that the proofs of its efficacy were in this instance not so clearly marked, as other treatment was combined, which might naturally assist.

The quantity of blood lost was very great indeed, for it was in a pool under the bed; the bed-clothes literally saturated with blood. The lower extremities cooled by the vinegar and water, which she had been in the habit of using in milder attacks of this hæmorrhage, were now quickly dried, and a warm binder firmly bound round the hips, a sponge pressed out of hot water and vinegar introduced into the vagina, a compress of linen, and the bandage to secure all. While I was thus employed one of the family was endeavouring to make her swallow some brandy with twenty grains of hippo in it; almost every appearance of life had fled; there was no pulse to be felt,

and the extremities, arms, and legs cold as death; she scarcely breathed for an hour, during which time every exertion was made in the way of warm friction, turpentine enemata, and brandy, in such quantities as could be got down the throat. The hæmorrhage from the vagina seemed to have ceased, so far as the clean bandages gave information; indeed death seemed to have closed the scene. At last the chest heaved, respiration now became evident, she could swallow better, and the brandy was more liberally given; after much watching and attention, warmth seemed to become more evident on the surface. In three hours from her getting the ipecacuan, some slight effort to vomit came on, which we thought was occasioned by it. An eminent surgeon, who is now no more, saw her while lying in this condition, and I shall never forget the remark which he made when he was going away. However I did not consider this death-like interval to be entirely attributable to the loss of blood; hysteria often assumes this still form of existence, and here was a subject under circumstances calculated to excite the most formidable aspect of this disease: the result proved I was right in my exertions. The force of vomiting was at last so strong as to assure me the medicine was producing its effect; the cloths of the bandage became bloody, which with the sponge were removed; the latter was saturated with blood. Life now every hour became more and more established, and in about three months this lady could be removed to the sea side, where she gradually recovered both health and strength. She still continues to be afflicted with the excessive loss of blood occasionally, for which she regularly takes some grains of hippo, but not an emetic dose; and is never disappointed in its effect of arresting the hæmorrhage. The last time I heard of her, she could walk six or eight miles in the day, and that perhaps three times a week.

Another case shows its efficacy in hæmorrhage from the alimentary canal.

In May, 1838, a young lady was seized with faintness, while standing beside her brother who was fishing not many yards from the house; soon after getting home she became sick and vomited much blood. The intervals between each attack of vomiting were short and variable, sometimes an hour, and again may be two or three hours. Thirty-two hours from the time of

attack the vomiting had not ceased, the patient was lying in the dress in which she had been taken ill, loosened as much as possible, as every movement created sickness which would not subside until vomiting came on. Her mouth and tongue were as white as her lips and cheeks from the great loss of blood, the pulse was scarcely perceptible, the extremities cold; had taken nothing but cold drinks in mouthfuls, and her medicine, since the attack came on. In this state the ipecacuan was proposed to be given in grain doses every half-hour, combined with the same quantity of calomel; after taking the third dose, nausea became distressing, accompanied by faintness; this soon subsided, but after the fourth grain the effort to vomit was complete, and a perfectly yellow bile was vomited without any admixture of blood; the medicine was now laid aside. This lady recovered rapidly and perfectly, under the judicious management of my friend Dr. Cuming, and is now in excellent health.

The chief value which the experience of the foregoing cases exhibits, appears to be that the remedy does not require to be exhibited in its full emetic dose; this at once disarms the medicine of many of its disagreeable features. Few friends will administer an emetic dose of ipecacuan in hæmatemesis, even though prescribed by the physician, but let the latter administer small doses of the remedy, and their prejudices are at once overcome; there is a certain feeling too in the breast of the physician, which forbids him to use a remedy so little in accordance with the ideas of the public, though they may be erroneous, as his success in his profession depends upon the confidence which the community at large place in his judgment and good sense; and should these be once forfeited, it is no easy matter to regain them. This feeling, I think, is one great cause why this well known remedy has not been more generally prescribed.

Dublin Journal of Med. Science, Jan. 1840, *p.* 477.

After reading the above interesting cases, a question arises in our minds, whether or not any other nauseating medicine would produce similar effects in stopping hæmorrhage. For it is a well known fact in physiology, that when sickness exists, whether from loss of blood, or from any other cause, the blood coagulates much more rapidly than at any other time, and hence the ruptured and open vessels may be more rapidly closed

by coagulum. We consequently find that in hæmorrhage from the uterus, when the woman is in a complete state of syncope, the flooding ceases not only from the diminished vis a tergo, but also on account of this admirable provision.

13.—ON THE PREPARATION AND USE OF KOUMISS.

By Dr. Mayo.

We extract the following from Dr. Mayo's Lectures on the Pathology of Morgagni, as this way of giving milk is not generally known or appreciated by the profession, and when recommended by such a man as Dr. Mayo, will probably be more generally used in consumptive cases.

That milk should be valuable in laryngeal phthisis is very conceivable; but it is often difficult to render it acceptable to the adult stomach in this as well as in other disorders in which it might be valuable. In two cases, one of laryngeal phthisis, another of marasmus, apparently arising from mesenteric affection, I have employed with considerable success a preparation of milk, imitated from that which goes by the name of koumiss. The first of these cases, a lady, aged 50, occurred to me in the year 1818. Its general features resembled very nearly those of the case extracted from Morgagni. In the second case obstinate sickness, or, if food were kept on the stomach, intense indigestion, had reduced a young lady, aged 20, to a very dangerous state of weakness and emaciation. There was no irregularity of the catemenia, and no moral cause to which this state could be referred: it had come on gradually and furtively. She was of a relaxed habit and pale complexion. Measures adapted to remove a presumed obstruction of the liver, which was not indicated by the state of the fæces, had proved ineffectual, or rather, I might say, productive of mischief.

In the first of these cases, the preparation to which I would call your attention was made from asses' milk, in the second from cow's milk. In both cases it was taken in considerable quantities, and formed the exclusive diet of the patient for some time.

The result of this treatment was so very decisive in these two cases, and the authority in favour of its further trial so good, that I do not think I can better employ your time than in giving you some further details of the preparation which I imitated, even though they should extend to some length.

A history of koumiss was read by Dr. Black, before the Royal Society of Edinburgh, in the year 1784, on a communication made by Dr. Grieve, late physician to the Russian army. He describes it as a vinous liquor prepared from mares' milk. It appears, as far back as the thirteenth century, to have been a common beverage of the Tartar nations. The latest writer by whom it was mentioned before Dr. Grieves, was the celebrated professor, Dr. Pallas. The following method of making koumiss, says Dr. Grieve, is that which I have adopted in my own practice with success. "It is common among the Barchkir Tartars, who inhabit the territory between the rivers Kama and Volga. It was communicated to me by a Russian nobleman, in whose case I was consulted, and who was the first who made use of it by my advice. He went into that country on purpose to drink it, and as he resided for some time there, he could not be mistaken as to the process.

"Take of fresh mare's milk of one day, any quantity; add to it a sixth part of water, and pour the mixture into a wooden vessel; use then, as a ferment, an eighth part of the sourest cow's milk that can be got; but at any future preparation, a small portion of old koumiss will better answer the purpose of souring. Cover the vessel with a thick cloth, and set it in a place of moderate warmth; leave it at rest twenty-four hours, at the end of which time the milk will have become sour, and a thick substance will have gathered at the top. Then, with a stick made at the lower end like a churn-staff, beat it till the thick substance above mentioned be intimately blended with the subjacent fluid. In this situation leave it at rest for twenty-four hours more; after which, pour it into a higher and narrower vessel, resembling a churn, where the agitation must be repeated as before, till the liquor appears to be perfectly homogeneous; and in this state it is called koumiss, of which the taste ought to be a pleasant mixture of sweet and sour. Agitation must be employed each time, before it is used.

"From the time," observes Dr. Grieve, "that I had heard of koumiss, I had conceived an opinion of its importance in

the case of certain diseases. I judged that a preparation of milk which could not be curdled by the juices of the stomach, while at the same time it possessed all its nutritive properties, with the superaddition of a fermented spirit, might be of essential service in all those disorders where the body is defective in the capacity for obtaining nutrition. The following year, he observes, I resolved to try it, at Nischene Novogorod, under my own eye. As mare's milk could not be obtained in sufficient quantity in town, it was made at the seat of a gentleman not far distant, from which it was occasionally transported. The season was far advanced, however, before its efficacy could be tried. At last (about the middle of August, 1782) I was consulted by the General Governor's nephew. He had all the symptoms of incipient phthisis: pain of the breast, dry cough, occasional hemoptysis, and great emaciation. He had not, however, become hectic. His two elder brothers had died of true pulmonary consumption. He had taken much medicine in a different part of the country, and had observed a strict antiphlogistic diet: but though milk had constituted the greatest part of his diet, yet there was no sign of his recovery. He drank koumiss for about two months only, and that in rather an unfavourable season. But the consequence was, that all his symptoms disappeared and that his flesh and strength returned, nor was there any reason to suspect a relapse at the time that I left the country."

In various cases in which I have employed this remedy (obtained once from asses' milk, at other times from cow's milk) I was led by a wish to obtain a form of milk which should suit and satisfy the stomach, without much reference to its asserted vinous properties, and under circumstances in which an unstimulating regimen was apparently expedient. Where its use has failed in my hands, the koumiss, I must observe, has appeared to me unsuccessfully prepared; as not possessing the obvious conditions of taste here described. I adduce the subject as one which deserves, both from myself and others, further attention.

It is, indeed, a painful consideration, and one which, if it does not occasion scepticism as to the resources of medicine, may at least inflict some degree of disgrace on our modes of using those resources, that there should exist so large a catalogue of absolutely unappreciated remedies.

Med. Gazette, Jan. 17, 1840, *p.* 619.

14.—ON ALKALINE INDIGESTION. By R. D. Thomson, M.D.

(Abstract of a Paper read before the British Association at Birmingham.)

It has been long known that in stomach complaints fluids are frequently ejected from that viscus into the mouth; and it has been by examining the chemical constitution of those fluids that the author has been enabled to simplify, in some considerable degree, one of the most disagreeable forms of dyspepsia. Dr. Thomson divides the fluids which he has detected in these complaints into *acid*, *alkaline*, and *neutral*.

1. The *acid* state is familiar to most persons. In the natural, there is no doubt that during a certain period of the process of digestion, the contents of the stomach exhibit an acid reaction; that is to say, that litmus paper, dipped in the fluid existing in the stomach, becomes red; that the fluid tastes acid, and that when distilled over, a quantity of pure water having been previously added, the fluid which passes into the receiver exhibits a faint acid reaction. This does not occur, according to Schultz, however, during the first half-hour or hour of the process of digestion. The acid would, therefore, appear to be generated by the process. The discussion with respect to the nature of the acid, Dr. Thomson stated that he would reserve for the Chemical Section. When this natural acid, however, as it may be termed, accumulates to a certain extent, symptoms of disease exhibit themselves, in the form of a burning sensation at the pit of the stomach, with acid eructations, which do not, however, alleviate the pain. This is the characteristic symptom of *acid indigestion*.

2. The second form of indigestion, indicated by the fluid ejected from the stomach, Dr. Thomson terms *alkaline indigestion*. It is characterized by violent pain in the region of the stomach, accompanied, frequently, with head-ache and faintness, with a sensation of spasm or contraction in that viscus; the sensation goes on increasing, till it frequently becomes intolerable, and, at last, when the agony is complete, the patient is suddenly roused by a determination to the mouth of a large quantity of fluid, which must be immediately evacuated, to give place to a succession of similar occurrences; at last, however, the flow of fluid becomes so abundant as to constitute an actual stream: it continues to flow for some time, but gradually

diminishes in quantity, and at length ceases, and with it the pain in the stomach. The latter is the characterizing symptom of *alkaline dyspepsia*, or *pyrosis*, as it has been frequently termed. But hitherto it has always been confounded with other forms of indigestion. Dr. Prout has published an account of his examination of the fluid of *pyrosis*, and has stated that it was acid; the fluid, however, was not procured by himself, but was sent him from one of the hospitals, where the mistake was very likely to occur. This form of indigestion occurs much more frequently than is generally imagined. Dr. Thomson stated, that out of forty or fifty patients daily seen at the Blenheim-street Dispensary, in London, he generally met with one or two affected with symptoms of this description. It frequently occurred in coincidence with affections of other organs—as of the uterus, liver, &c. and was often of such a pressing nature, that it required more of the skill of the medical man than the original disease. Certain it was, that it was absolutely necessary to treat it with as much care as the original complaint; and if the action had been allowed to go on for some time unchecked, the secondary affection became as firmly fixed as the original disease which had induced it; so that after the removal of the latter a second disease, as firmly rooted as the first, required to be taken under the physician's care: the treatment consisted of the administration of acids, tonics, and narcotics, which required to be prescribed with care, otherwise the *acid indigestion* was frequently induced, which was as difficult to eradicate as the alkaline form.

3. The last form of indigestion, as indicated by the fluid ejected by the mouth, which the author had met with, was a *neutral* state, which was of much rarer occurrence. Dr. Thomson had, however, met with several cases, and had succeeded in overcoming the disease by the use of tonics.

Lancet, Sept. 21, 1839, *and British and Foreign Med. Review, Jan.* 1840, *p.* 273.

15.—ON THE USE OF OIL OF COD FISH IN SCROFULA.

By Dr. Taufflied.

The author was disposed to try this remedy in some obstinate scrofulous diseases, from the praises which it had received from

the German physicians; and although it would be difficult to obtain the same preparation at all times, the cases given by Dr. Taufflied are well worthy of our attention. In the first case related, which is a scrofulous affection of the bones of the back, all remedies seemed to fail till the oil of cod was given, and persevered in for some time: "There was complete paralysis of the inferior extremities, with projection of the spinous processes of the first two lumbar vertebræ, and finally a large abscess, formed by congestion near the sacrum."

Four spoonsful of the oil were given every day for a month or two—the case soon appeared to be cured, but relapsed; and again the oil was had recourse to—the cure was then completed; and, each time, the improvement commenced soon after giving the oil. "The patient, a young man, consumed about thirty-six pounds of oil of cod in two years and a half."

In the second case, a girl of six years, whose foot was a shapeless mass, pierced by a number of fistulous openings, two spoonsful were given daily for nearly six months, with the same evident improvement, after the failure of the ordinary remedies.

Other scrofulous cases are related by Dr. Taufflied which we have not space here to insert: suffice it to say, that in all, the most marked good effects followed, and the author comes to the conclusion, that when the remedy is administered with perseverance, it is "able to effect an alteration in the constitution, and imprint a favourable direction on the organs of nutrition. This advantageous effect of the oil has shown itself in the majority of the persons who have taken it, by the more or less speedy return of strength and plumpness, and by an indisputable influence on the scrofulous disease itself. Hence the oil of cod will fulfil the indications of the general treatment."

Dr. Taufflied proceeds to say, that—

Caries, being a local disease, requires in addition, some special treatment. Burrowing sores, fistulous passages, and particularly the ulcerations and swellings of the soft parts, are so many obstacles against which internal treatment can do nothing. Compression, and stimulating the ulcerated surfaces by the solution of ioduret of potassium in alcohol and water, have been the means with which I have always succeeded in getting rid of these obstacles. I am convinced that the oil of cod alone would have been insufficient to cure the caries in cases 2, 3, 4, and 5, while it was sufficient to remove the scrofulous swellings of the malar bone, and of the bone of the nose, in the 4th and 5th cases, and the caries unaccompanied by any external sore in the first case.

Hence the cure of scrofulous caries requires a mixed treatment. The efficacy of this method in diseases which so frequently resist the efforts of art, makes us hope that surgical intervention will henceforward be limited to a small number of exceptional cases which experience will teach us to distinguish.

The oil was administered in three cases of coxalgia, with incomplete luxation of the thigh. In one of these instances the inflammatory symptoms were previously combated by an antiphlogistic treatment. After a treatment lasting several months, the patients were able to use their limbs, though they were more or less shortened. In another case of incipient coxalgia, the local pain, which, however, was by no means serious, and the lameness, readily yielded to the use of the oil. These patients were of a lymphatic constitution, without having well-marked symptoms of scrofula.

The oil was moreover administered to two women who had lost the use of their limbs for several years, in consequence of chronic rheumatism of the joints. In these patients, the power of locomotion was so limited, from the swelling and stiffness of all the joints, that it was necessary to carry them from one bed to another. The use of the oil gradually removed the swelling of the joints. In five or six months the power of motion was re-established, and at present the patients are able to walk with considerable ease.

I cannot refrain from reminding the reader that the therapeutic powers of the oil of cod first showed themselves specially in rheumatic arthritis of the chronic form. It was afterwards employed with equal success against scrofulous white swellings.

This perfect resemblance in the results obtained by the same treatment, in affections of an apparently different kind, seems to support the opinion of those physicians who, like M. Brefeld, consider arthritic rheumatism in its chronic form, and scrofulous arthritis, as almost identical. The efficacy of the oil of cod in these diseases, whether scrofulous or rheumatic, is fully confirmed by the observations of Schenk, Günther, Wesener, Möning, Schütte, Brefeld, and other practitioners.

When the white swellings are acute or inflammatory, whatever may be their origin, a local or even a general antiphlogistic treatment ought always to precede the administration of the oil, the action of which is commonly too slow to arrest the rapid progress of an acute disease. In gouty arthritis, the oil of cod, as M. Brefeld remarks, has no efficacy. I found this to be the case in one of my patients, who was attacked with gout, and made use of the medicine.

It is probable that its healing power depends primarily on its restoring the function of nutrition when it is in a disordered state; so that its influence upon diseases of the bones and joints may be considered as secondary or consecutive. The therapeutic properties of this oil have been attributed, by some physicians, to a small quantity of iodine which M. Hopper has discovered in it. This will not appear very probable if we recollect that the preparations of iodine taken internally for a long time, and in large doses, had hardly any influence on scrofula of the bones in cases 2 and 5.

We may reduce what we have said to the following propositions:—

1. The oil of cod has a favourable influence on the general state of lymphatic patients who make use of it.

2. When properly administered, it has the property of curing scrofula of the bones, marasmus, and chronic arthritis of a scrofulous or rheumatic form.

3. Caries, accompanied by a sore and swelling of the soft parts, requires the general treatment with cod oil to be seconded by local applications. Compression and iodurettted alcoholic fomentations may be employed with success under such circumstances.

4. The oil of cod is of no avail against gouty arthritis, or swellings of any lymphatic glands but those of the abdominal cavity. Its action seems doubtful, or null, in scrofulous phthisis, when at all advanced.

5. The oil of cod must be administered with perseverance, and for several months, to produce an advantageous result.

Abridged from the Gazette Medicale, Nov. 9, 1839.

[The *huile de morue* so highly extolled by Dr. Taufflied is the oil of the liver of the cod—*oleum jecoris aselli.* It is difficult to procure in this country.—*Translator.*]

Medical Gazette, Feb. 28, 1840, p. 841.

16.—SALIVATION BY SMALL DOSES OF MERCURY.

In the discussion respecting the salivation of patients by minute doses of mercury, in the Westminster Medical Society, Mr. Snow offers an ingenious explanation. He says:

He did not believe that the salivation which was occasionally produced by a very small dose of mercury depended on any idiosyncracy of constitution, which continued during the patient's life, but was the result of the presence of an excess of acid in the first passages. He had been led to this conclusion by having frequently seen patients salivated by a very small quantity of calomel or blue pill, taken at the same time with mixtures containing dilute sulphuric acid. Very lately, a man who was taking sulphuric acid freely for epistaxis, was severely salivated by two grains of calomel in a dose of cathartic pills. The acids naturally contained in the stomach were the muriatic and the acetic, and the mercury contained in a grain or two of colomel, or a few grains of the blue pill, would, of course, be sufficient to produce the most serious consequences, if changed into the bi-chloride. If the view he had suggested was correct, the means of preventing untoward effects would be to give corrosive sublimate at once, where a course of mercury was indicated, and to give it in suitably minute doses.

Mr. Streeter remarked that the fact of the action of blue pill being much more powerful at one time than another, might be accounted for by the conserve of roses, with which the metallic mercury was tritutrated, being occasionally mixed with sulphuric acid, for the purpose of restoring its lost colour. Hence, instead of the simple oxide, the sulphate of mercury was producing its effects upon the patient. He had no doubt, however, that some constitutions were remarkably susceptible

of the influence of mercury in its mildest forms. He had seen severe salivation produced by the administration of nine grains of blue pill, although it had only been given in one grain doses three times a day, and its effects watched with the greatest care.

Lancet, Jan. 18, 1840, *p.* 625.

This reminds us of the practice of Dr. Law, who produces salivation with calomel, given in very minute doses, and frequently repeated. And we can bear testimony to the truth and efficacy of Dr. Law's treatment in numerous cases which we have met with lately. Dr. Law says:

We made no particular selection of cases, but such as were labouring under affections which we ordinarily treated with mercury. We directed one grain of calomel to be mixed up with a sufficient quantity of extract of gentian to make a mass to be divided into twelve pills, one of which was to be taken every hour. We found, in some cases, salivation produced by twenty-four pills, or two grains of calomel; and seldom were forty-eight pills, or four grains, required to produce this effect. We would say, that thirty-six pills, or three grains, was the average quantity required to effect salivation. We exhibited blue pill in the same way, and found the mouth to become sore from six grains.

We have not yet tried it in primary syphilis. But this we have observed, that we have succeeded in bringing the system under the influence of mercury in a very short time by frictions of ten grains of the ointment. We have found one drachm divided into six parts, and one part rubbed in every night, sufficient to produce salivation.

[Several cases are given, illustrating the good effects of the remedy, employed in this manner; and, among the rest, two in which the constitutional effect was *postponed* by the patients taking a *larger* dose than was prescribed; in these two cases the medicine acted on the bowels. The following is Dr. Law's explanation of the facts.]

We conceive the efficacy of this mode of exhibiting mercury to depend not only upon its *remora* in the system being ensured by the smallness of the dose, but also, upon a succession of impressions being kept up by the exhibition of these small

doses at intervals, not so distant as that the effects of the impression be passed away before they be succeeded by another; nor yet so short that the small doses, crowded upon each other, produce but one impression, and that one such as would result from a single dose, equal to the sum of the small doses.

[Dr. Law concludes as follows:]

It now remains to be established, if this effect from a small be equal to that produced by a larger quantity. Of this we feel quite confident, that experience will prove that all the advantage to be derived from the medicine is within the compass of a much smaller quantity than has hitherto been supposed, provided that small quantity be exhibited with due attention to circumstances calculated to promote its effect; and we would futher expect that this more guarded exhibition of it would save us from the frightful mischief that we sometimes see following it when largely administered; and which sometimes suggest to us the question, if mankind would not have been benefited by an agent, capable of such mischief, never having been introduced into the Materia Medica.

British and Foreign Med. Review, April 1839, *p.* 582.

If this extraordinary effect can be produced by calomel, so contrary to the general practice of medical men, why may not equally powerful and rapid effects be produced by other remedies when given in a similar manner?

17.—THE HYDRATED PEROXIDE OF IRON AS AN ANTIDOTE FOR ARSENIC.

A young lady, disappointed in love, resolved on suicide. She took a packet of arsenic containing two drachms, put it into a silver vessel, poured over it about two ounces of water, and drank the fluid contents. This was about midnight. She then went to bed; but finding death not approaching, she took some of the poison which remained at the bottom of the vessel, and endeavoured to push it down her throat, but its bitter taste, she said, made her spit out a part of it. She must, however, have taken about fifty-six grains of arsenious acid. At one in the morning, the first symptoms of poisoning manifested themselves by several attempts at vomiting, and by a feeling of

burning heat in the throat and in the region of the stomach. It appeared that the patient had that day ate a hearty dinner, the digestion of which had not apparently been finished, as the vomiting brought up a portion of it, and probably also some of the poison. The pain soon became violent, followed by cramps in the calves of the legs.

Dr. Deville saw the patient at four o'clock in the morning. She had vomited three or four times; she had intense frontal head-ache, and her face was much flushed; her eyes were greatly swollen, and filled with tears; and she complained of a feeling of suffocation, and also of acute burning pain in the throat and stomach. Her pulse was strong, full, and bounding. Dr. Deville thought he had arrived too late to render effectual assistance, and gave only some milk and other drinks to aid the vomiting, and applied a poultice over the region of the stomach. The symptoms progressively increased in intensity, and Dr. Delons was sent for, who proposed to give the hydrated tritoxide of iron. This medicine was procured by half-past five, five hours and a half after the taking of the poison. It was given in ounce doses about every quarter of an hour, till eight o'clock, by which time nearly half a pound had been taken. It was then discontinued, as it had produced vomiting several times, and had purged twice, and as the symptoms appeared to be abating. She still, however, suffered from violent cramps, particularly in the left leg. The pulse still continued full and bounding; the pains in the epigastrium were at times insupportable, and then again almost disappeared. Twenty-five leeches were applied over the stomach, followed by cataplasms; and emollient injections were administered at intervals.

Feverish symptoms, with violent head-ache, continued for this and several succeeding days, preventing the patient from enjoying a moment's repose. The pain in the epigastric region, however, diminished under the use of warm baths and soothing treatment; and at the end of eleven days she had completely recovered. *American Journal of Med. Science, May* 1839, *and Edinburgh Med. and Surg. Journal, Jan.* 1840, *p.* 254.

The above is confirmed by the opinion of the German chemist, M. Bunsen, as related in the *Revue Medicale.*

The value of the remedy has been confirmed by several other experimenters; and as the compound formed by the union of

the two metallic salts is quite insoluble and inert, there is every reason to believe, that if a complete union could take place in the stomach when the poison has been swallowed, and before it has produced its deleterious effects, many a life might be saved. As far as we know, there is only one case on record where the peroxide has been used in the human subject; and in that case it was used with success. It is reported in the Revue Medicale, and an account of it was given in one of our recent numbers. The only objection that has been made against the moist peroxide is the tediousness of preparing it, its inconvenient bulk, and the difficulty of keeping it for a length of time. A committee was recently appointed by the Society of Medicine to examine the subject in all its details, and to endeavour to discover a substitute for the moist peroxide recommended by M. Bunsen.

The report of this committee has been published, and we shall extract one or two of its most important paragraphs.

After a few prefatory remarks, it is stated, "we do not hesitate to assert that the arsenious acid is *victorieusement combattu*, not only by the moist peroxide of iron proposed by M. Bunsen, but still more effectually and more easily at the same time by the dry hydrated peroxide—the sub-carbonate of iron of the chemists."

This is readily prepared by precipitating the proto-sulphate of the metal by carbonate of potash and washing the precipitate repeatedly. By exposing it freely to the air during desiccation, it becomes completely oxidated, loses its carbonic acid, and is then in short a dry hydrated peroxide:—100 drachms of this precipitate, when calcined, yields 69 drachms of an anhydrous peroxide.

The reporters acknowledge that the wet preparation recommended by M. Bunsen has in many experiments fully answered the promises held out by that chemist, provided it be administered in sufficiently large doses. But, as we have already said, the objection to this preparation is the length of time required to make it, and its most inconvenient bulk. If, therefore, the the dry peroxide will answer as well, it must be, considering the facility with which it may be obtained, altogether preferable. Now in numerous experiments performed by the reporters, its antidotal efficacy was very remarkable when the dose of the poison had not exceeded four or six grains.

The first thing to be done is to encourage vomiting as freely possible. But in doing this, the patient should be made to drink copiously of milk or of oil, and not of water, to prevent the further solution of the poison. Whenever the vomiting is carried as far as is deemed advisable, a quantity of lukewarm water, in which several ounces of the dry peroxide of iron are suspended, should be administered. If it is rejected by vomiting so much the better; we have only to repeat the dose immediately.

The committee suggest that half an ounce of the dry peroxide should be given for every grain of the arsenic that may be in the stomach.

For the particulars of the experiments, chemical and physiological* (on dogs) for the purpose of determining the effects of the peroxide in neutralising arsenious acid, we must refer our readers to the numbers of May and June, 1839, of the—*Revue Medicale.*

Med. Chir. Review, Jan. 1840, *p.* 225.

We also add the following case from the *Lancet.*

On the 4th of October last, MM. S———, father and son, were seized with violent vomiting immediately after supper. It was discovered that some substance was contained in the wine bottle from which they had drunk. The bottle was at once carried to a medical man, who tested the contents with the blow-pipe, and discovered arsenic. Three hours after the presumed poisoning the iron was administered, and after the third or fourth dose the vomiting had ceased; the remedy was, however, continued for the sake of precaution, and towards seven o'clock, A.M., the patients fell asleep. On the following day they were perfectly recovered. Some members of the family, and servants, who had tasted a small quantity of the wine, through curiosity, were all seized with vomiting. A considerable quantity of the poison was found in the bottom of the bottle, and that taken by the two men must have been much more than sufficient to occasion death.

Lancet, March 7, 1840, *p.* 901.

These interesting cases are confirmed by Dr. Mackenzie, in a recent number of the *Lancet,* where several very interesting

* It is mentioned in the report that *small doses of arsenic,* say four or six grains, *proved more quickly fatal than larger ones,* as from 12 to 40 grains. The absorption seems to go on more rapidly when the dose is small.

experiments are related which render it still more probable, notwithstanding the contrary opinion of Mr. Brett and Mr. Orton, that we are in possession of a powerful antidote for this most violent poison. Dr. Mackenzie says:

The inefficacy of sulphuretted hydrogen, the alkaline sulphurets, charcoal, &c. as antidotes to arsenious acid, having been fully shown by M. Orfila, I resolved to make a few experiments with a view to determine whether the last-discovered counter-poison, viz. the hydrated sesquioxide of iron, so much extolled by the toxicologists of the continent, more particularly by those of Germany and France, is a true antidote.

There are two methods of preparing this substance, viz. by adding ammonia to the persulphate, or to the pernitrate, of iron. The hydrated sesquioxide immediately precipitated, is to be collected on a cloth filter, where it is to be carefully washed with boiling water, until most of the sulphate of ammonia is removed, which will be ascertained by the water used in washing not affecting reddened litmus paper. The permuriate of iron does not answer for the preparation of this substance, as on the addition of the ammonia, there is thrown down along with the sesquioxide, a considerable quantity of chloride of iron. The hydrated sesquioxide ought to be kept in the state of a magma, as it is found to unite with arsenic more readily in that condition than after it has been dried. It should be carefully excluded from the air, as it is apt to absorb carbonic acid. M. Henry says, that from every thirty-six parts of sulphate of iron, there will be obtained twelve of the sesquioxide. The quantity of the antidote requisite to neutralise a given portion of the poison has been differently stated. Dr. Bunsen recommends from two to four drachms, with sixteen drops of ammonia, to be given for every six or eight grains of arsenic; while MM. Orfila and Lesueur give a much larger quantity. M. Bouley gives thirty-two parts, and Drs. Borelli and Demaria four and a half, for every portion of arsenic; but the quantity most generally chosen is that recommended by MM. Miquel, Soubeiran, and Nonat, who administer the antidote in the ratio of twelve to one of the arsenious acid.

Several experiments are then related, but as they are all to prove the same thing, we will only give a few, and refer the

reader to the rest, if he feel so inclined; remarking, however, that as both the poison and antidote were given within a very short time of each other, they are not sufficiently conclusive; as it is very seldom the case that a medical man is sent for within so short a period as five or ten minutes after the poison has been swallowed. The cases, however, related in the American journal, above quoted, and in the *Lancet* of March 7th, are more satisfactory on this point.

Experiment 1.—Three grains of arsenious acid were dissolved in about an ounce of water, and then a quantity of the magma of the hydrated sesquioxide, equal to thirty-six grains, was mingled with it. The mixture was immediately filtered, and tested with ammoniaco-nitrate of silver, ammoniaco-sulphate of copper, and sulphuretted hydrogen, none of which gave the characteristic precipitates.

This experiment proves that all the arsenic had united with the sesquioxide of iron, and had formed an insoluble compound with it, which Dr. Bunsen says is an arsenite of iron. I repeated this experiment several times, and always with the same result, which shows that Mr. Brett was wrong in stating that "an excess of peroxide of iron will not neutralise arsenious acid, even when the last is in solution, and the time allowed very considerable."

Having thus proved that when a solution of arsenic and the sesquioxide of iron come in contact, they combine, and form an insoluble compound, I proceeded to make a few experiments on animals. with a view to determine whether, when arsenic is introduced into the stomach in the solid form, the antidote combines with it, and prevents it acting.

Experiment 2.—At a few minutes past four, P.M., I injected, by means of an œsophagous tube, into the stomach of a large mongrel dog, eight grains of arsenious acid in fine powder, and immediately afterwards, a quantity of the magma of the hydrated sesquioxide, containing one hundred grains, suspended in about five ounces of water. The œsophagus was then tied to prevent vomiting. This animal presented none of the appearances which so large a dose of arsenic always produces. It was killed about three o'clock on the following day.

Dissection immediately after Death.—The peritonæum was perfectly healthy throughout the whole of its extent. The mucous membrane of the stomach presented slight redness at its inferior portion, towards the great curvature. There were several inflamed spots along the course of the duodenum, but they were very few and faint in the jejunum and ileum. The cœcum and large intestines were healthy, but the rectum, at its termination, was considerably reddened. The other organs in this cavity were natural. The heart and lungs presented no abnormal appearances.

Experiment 3.—At one, P.M., seven grains of arsenic were administered to a very small mongrel dog, and, five minutes afterwards the antidote, in the ratio recommended by M. Bouley. A ligature was then tied round the œsophagus, to prevent vomiting.

The animal was rather weak after the operation, but it soon became stronger. It was visited at half-past eight in the evening, and the ligature round the œsophagus was removed. No vomiting took place. On the following morning it was quite healthy, and there were none of the symptoms present which characterise poisoning by arsenic. The food which had been laid before it on the previous evening, remained as far as I could judge, untouched. However, during the course of the day, it both ate and drank, and, in short, continued perfectly well. It was killed on the sixth day after the experiment.

Dissection.—The peritonæum was healthy. In the stomach there was slight redness, considerably diffused, which extended to within about two inches of the pylorus, and the mucous membrane was coated in several places with false membranes. The small and large intestines exhibited the same appearances as in the last experiment. The lungs were healthy, and the only morbid appearance in the heart was a very slight ecchymosis at the left auriculo-ventricular opening.

Remarks.—All the foregoing experiments tend to prove that Dr. Bunsen did not err in ascribing so much value to the use of the hydrated sesquioxide of iron, precipitated by ammonia, in cases of poisoning by arsenic, as Messrs. Brett and Orton asserted that he did; and they show that those gentlemen were wrong in stating that no confidence could be placed in its properties as a counter-poison. In all of the experiments slight inflammation was found in the stomach and intestinal canal,

but that does not invalidate the efficacy of the antidotes, because, whenever arsenic comes in contact with the mucous membrane, it adheres to it, and soon becomes enveloped in a coat of mucus, which effectually prevents the antidote acting upon it, and consequently causes inflammation, more or less severe, according to the quantity thus covered up.

There is a considerable number of cases, where this antidote was used with success, related in the following periodicals, viz. :—

Gazette Médicale, Aôut 22, 1835.

Literary Gazette, 1835, p. 556, two cases.

Lancet, 1834-5, vol. I. p. 516.—Lancet, 1838-9, vol. I. p. 554.—Lancet, ditto, ditto, p. 327.

Medical Gazette, vol. XIX. p. 177.

British and Foreign Med. Rev. vol. I. p. 572, six cases. Ditto, ditto, vol. VII. p. 563.

Upon being called to a case the practitioner ought, if vomiting has not taken place, to administer an emetic, while he is procuring the antidote. This will prove useful, by evacuating the stomach of a considerable quantity of the poison; of course it would be wrong to give an emetic in those cases in which vomiting has been produced by the action of the arsenic, and all that is necessary to be done is to give milk, which "should be drunk both before and after vomiting has begun, as it appears to be the best substance for enveloping the powder, and so procuring its discharge." Whenever the antidote is procured, it ought to be given every two or three minutes in dessert or tablespoonful doses, mingled with a little water; some have recommended syrup or mucilage to be used instead of water, but it is of no importance which is employed. If the antidote be vomited up, which very frequently occurs, it should be given until the vomiting and other bad symptoms have entirely ceased; indeed, the quantity ought not to be regulated by the amount of the arsenic swallowed, but rather by its effect on the symptoms.

The prognosis will be more favourable, the less the time which elapses between the administration of the poison and antidote, and the thicker the fluid in which the arsenic was suspended, because less of it adhere to the mucous membrane of the stomach. *Lancet, April* 4, 1840, *p.* 46—49.

18.—THE BEST MODE OF PRODUCING AND EXHIBITING THE TRUE PROTOXIDE OF IRON.

By M. Donovan, Esq.

The Protoxides of Iron are soluble in the stomach, while the Peroxides are not so. Medical men therefore ought generally to prescribe the former; and will, no doubt, read the following communication from that able chemist, Mr. Donovan, with attention and pleasure.

The only method known to me, by which iron can be exhibited in the state of protoxide, its solubility being preserved, is to administer it shortly after it has been precipitated, to protect it from contact of air, until it is administered, and to avoid subjecting it to any of those processes which have a tendency to increase its cohesion, as evaporating, boiling, or filtering.

As preparations of iron have a tendency to induce more or less constipation, it is rather serviceable, although not absolutely necessary, to combine them with a gentle aperient. A very small quantity of sulphate of magnesia may, therefore, be advantageously exhibited with a chalybeate. I find that calcined magnesia is a very convenient precipitant of protoxide of iron from sulphate of iron: for, as it is prudent to use a slight excess of the magnesia, that excess is neither disagreeable nor hurtful: and the magnesia, by combining with the sulphuric acid of the sulphate of iron, produces sulphate of magnesia, while protoxide of iron separates, and is then, and for some time after, easily soluble in weak acids. Thus every object is at once attained.

With regard to the quantity of these substances which may be employed, I can only state the results of a few trials made on myself, and another person, who on my assurance of the dose I used, took a similar one. I began with half a drachm of sulphate of iron, well triturated with five grains of calcined magnesia, and an ounce of water. I then took two scruples, with eight grains of magnesia, without observing any effect from the dose, except the blackening of the fæces, and this it did in an extraordinary degree. Fifty grains of sulphate of iron, with eight grains of magnesia, caused the discharge of the stomach.

A newly made draught of this kind contains the iron in such a state, that it will instantly dissolve, if distilled vinegar be mixed with it. If the phial, in which it is contained, be well stopped, as by capping the corks with moistened bladder, the solubility of the contents will be preserved for several days. The precipitate sometimes grows pasty in the bottle after resting some time, but if shaken, the whole becomes again liquid.

It remains to consider the formula best calculated to present the protoxide in a state fit for exhibition; and the first step is to obtain a proper sulphate of iron.

Much of the sulphate of iron sold as pure, is prepared by re-crystallization from the sulphate of iron of commerce, obtained from iron pyrites. Precautions may not have been used for removing the copper; mere re-crystallization will not do it. Hence, such sulphate is totally unfit for the purpose, as by daily use of it, a deleterious quantity of carbonate of copper would, at length, have passed through the patient. Neither will sulphate of iron, ever so pure, which has assumed a green colour, answer the purpose; for this, by decomposition, will afford a deep green precipitate, less soluble in weak menstrua, than is desirable. The sulphate of iron in crystals must be azure, or beryl-blue. Such will be best prepared according to the process of Berthemot, which is as follows:—

Dissolve sulphate of iron, free from copper, in water sharpened with sulphuric acid, and crystallize it. Of this salt, take 500 parts; throw it in separate quantities into 550 parts of distilled water, kept boiling. When it is dissolved, add eight parts of turnings of pure iron, and in a few moments, while the solution is still boiling, filter it through paper previously well soaked in water. The liquor, as it runs through, is to be received in a vessel containing a mixture of 375 parts of alcohol at 36°, and 8 of sulphuric acid, continually agitating the vessel. The protosulphate of iron instantly precipitates, in the state of a blueish-white crystalline powder. When cold, the alcoholic liquor is to be poured off, and the salt dried on bibulous paper. This protosulphate contains its water of crystallization, just as if it had been obtained from a watery solution.

The next step towards obtaining a proper formula, is to determine the quantities of calcined magnesia necessary for the decomposition of a given weight of protosulphate of iron.

One drachm of sulphate of iron, is composed of

Sulphuric acid.....	17.26 grains.
Protoxide of iron...	15.54 "
Water	27.20 "

60.

The quantity of pure calcined magnesia necessary to neutralize the sulphuric acid in one drachm of sulphate of iron, would be 8.63 grains: but it would be better to use 10 grains. By union with the necessary quantity of water, 27.18 grains, the result would be the formation of 43 grains of epsom salt, and elimination of 15½ grains of protoxide of iron.

Having thus determined the proper quantity of the ingredients, we come to the formula:—

℞ Sulphatis Ferri *cærulei* Pulveris Subtillissimi, semunciam. Magnesiæ Calcinatæ, scrupula duo. Aquæ, uncias sex. Tincturæ Quassiæ, ʒ ii.

Magnesiam tere cum aquæ pauxillo, et permistis quod reliquum est adde: postea adjice sulphas et tincturam: iterum paulisper tere, etquam primum in phialas sex divide, probe et protinus obturandas. Sumatur unus mane nocteque.

This dose is to be considered average; for delicate stomachs, the quantities may be a little less.

The mouths of the phials should be tied over with moist bladder, or dipped in melted wax. In this way the protoxide of iron will remain in its soluble state for two or three days; and it is in possession of its maximum power, Each draught will contain ten grains and one-third of protoxide of iron, and twenty-eight grains and two-thirds of sulphate of magnesia; and each day will be taken about a scruple of the former, and nearly one drachm of the latter, which would act as a very gentle aperient, and obviate the constipation which the protoxide might otherwise occasion. The taste of the draught, otherwise disagreeable, is rendered merely bitter, but the iron is not blackened, or otherwise acted upon by the tincture of quassia.

It may be said, that this protoxide, by solution in acids found in the stomach, will once more form a ferruginous salt, perhaps as active, or even as deleterious as the original sulphate. The supposition, however, is contradicted by the fact, that the forty-grain doses in my trial, in no case produced any

unpleasant effects. This is true, but I do not attempt to explain it: the aid of hypothesis would be necessary for an explanation. The *modus operandi* supposed by Dr. Becker, the proposer of the saccharated protoxide, is, that it is " facilement absorbé par les sucs animaux." The only means in our power, of testing the solubility of the protoxide in the stomach, is to prove that it easily dissolves in weak acids out of the stomach.

Next to the above draught, I conceive that the *pilules ferrugineux du Docteur Vallet*, are the next best formula, and preferable to the *sucre ferrugineux* of Becker and Klauer. I could assign my reasons for this preference, but it is rendered unnecessary, by the Report made to the Royal Academy of Medicine, by MM. Soubeiran, Planche, et Martin-Solon. It may be proper to explain, that *sucre ferrugineux* is the same preparation as that which has been prescribed by some practitioners in Dublin, under the name of *protocarbonas ferri saccharisatus.*

Dublin Journal of Med. Science, March 1840, *p.* 156—160.

19.—BLISTERS AND COUNTER-IRRITATION.

The blistering plaster which M. Trousseau prefers to all others, and is the one which has always been used by M. Bretonneau, is prepared by adding powdered cantharides to sweet oil, till the mixture acquires the consistence of an electuary. It is then to be nicely spread upon adhesive plaster, and may then be applied to the skin. The interposition of a piece of blotting-paper between the skin and the blister renders the application altogether more cleanly, and diminishes the risk of urinary irritation, without impeding the efficacy of the remedy.

This is the form of blister which MM. Velpeau and Trousseau have introduced from the hospital at Tours into those at Paris under the name of *vesicatoire Brettonneau*, and is infinitely superior to the numerous preparations which are vended by the French pharmacopolists under the names of *vesicatoires Anglais, vesicatoires par incorporation, &c.*

The vesicant effects of the cantharides plaster seem to be rendered more certain, if its surface is smeared over with the

huile de cantharides par ether—for which there is the following formula in the last codex:—

Take of powdered cantharides 2 livr.
Sulphuric æther, a sufficient quantity.

Make a tincture by lixiviating the mixture, and draw over the ether by slow distillation. A green thickish oil, which has very strong vesicant properties, is thus obtained.

M. Trousseau has of late tried this *ethereal extract of cantharides* as a vesicant by itself in the following manner.

A portion of paper (such as is used by women for curling their hair) of the size of the wished-for blister, is to be laid upon a piece of diachylon plaster somewhat larger. A few drops of the *extract* are then to be poured upon it, so as to moisten it sufficiently, without however wetting it. This application causes heat in the part in about two hours, and, in the course of seven, a blister is usually raised. Perhaps the medium time required is from eight to nine hours.

The extreme convenience and cleanliness of this kind of blister must certainly recommend it under many circumstances; and, as it is not more expensive than the blisters in common use, the facility of the preparation renders it well adapted to military and hospital practice. M. Bouillaud employs this style of blister almost constantly at the Hôpital de la Charité; and already the *ethereal extract* is in great demand at many other of the Paris hospitals.

The extract is of a green colour and of the consistence of olive oil. It deposits a matter of a buttery consistence, which is excessively acrid and irritating. If incautiously applied to the skin, it produces a painful ulceration, which is often very difficult to heal. This deposit is readily soluble in oil, and the solution, if not too weak, is found to be an energetic vesicant.

M. Trousseau suggests that, as the ethereal extract seems to contain all the active properties of cantharides, a convenient and useful mode of preparing the tincture might be by dissolving a certain quantity of it in alcohol.

Med. Chir. Review, April 1840, *p.* 548.

We cannot help reminding our readers of the excellent formulæ published by Dr. Granville, for the purpose of producing counter-irritation, as will be seen by referring to the *Lancet*,

or Oct. 27, 1838, and which we here extract. These counter-ritant lotions are of three kinds.

Each kind of lotion consists of three ingredients:
1st. *The strongest liquor of ammonia,* A;
2d. *Distilled spirit of rosemary,* B;
3d. *Spirit of camphor,* C.

A. Saturate a given quantity of distilled water, contained in a glass receiver surrounded by ice, with ammoniacal gas, obtained in the usual way, from a mixture of equal parts of hydrochlorate of ammonia and recently slaked lime, both reduced to a fine powder. The water may be made to take up nearly 800 times its bulk of ammoniated gas under the circumstances described; its specific gravity will then be about 872, and 100 parts of it will contain 33 parts of real ammonia according to Sir H. Davy's tables. This solution of ammonia will, therefore, be more than three times the strength of the liquor ammoniæ of the Pharmacopœia of London, 100 parts of which, at a specific gravity of 960, contains only ten parts of real ammonia. I have, therefore, called mine "liquor ammoniæ fortissimus."

B. Take two pounds of the tips or small leaves of fresh rosemary, and eight pints of alcohol; leave the whole in infusion for twenty-four hours in a well-covered vessel, and after adding a sufficient quantity of water as will just prevent the empy-reumatic smell, distil over seven pints. The Pharmacopœia of London directs the essential oil of rosemary to be distilled instead with rectified spirit. Such a preparation I found unsuited for my purpose.

C. To four ounces of pure camphor add two pints of alcohol, so as to dissolve the camphor, which solution should be filtered. The present tincture of camphor of the Pharmacopœia of London contains one ounce more of that substance, and does not harmonize so well with my two other ingredients as the weaker preparation.

The three ingredients thus prepared, every medical man should keep always ready at hand in well-stoppered glass bottles, so as to be able to make, extemporaneously, a counter-irritating lotion of any requisite strength, according to the nature of the case requiring that application on extraordinary occasions; but for the ordinary purposes detailed in my work, it will be better to

keep both a milder and a stronger ammoniated lotion ready prepared for use.

The milder Ammoniated Lotion.—Assuming the quantity of lotion desired to be divided into eight parts, then the proportions of the ingredients will stand thus:

A—four eighths; B—three eighths; C—one eighth.

The stronger Ammoniated Lotion.—If the quantity desired be also divided into eight parts, then the proportions of the ingredients run as follow:

A—five eighths; B—two eighths; C—one eighth.

Although the changes of proportion here may be deemed trifling, yet the strength of the lotion is such that I never employ it except in cases of apoplexy, and for the purpose of cauterization.

A and B are gradually mixed together. The mixture becomes opalescent and somewhat turbid, and a peculiar highly agreeable ethereal smell is given out, different from the individual odour of either ingredient, although the extreme pungency of the ammonia be still discernible.

Before the third ingredient is added, it is desirable to clear the previous mixture, by the addition of a small quantity of alcohol, and to set the whole in a cool place.

The lotion must always be kept in bottles with a glass stopper; and their whole virtue depends on the accurate distillation and preparation of the ingredients, as well as on the careful admixture of the latter.

British and Foreign Med. Review, Jan, 1839, *p.* 292.

We also refer the reader to M. Gondret's

"*Pommade Ammoniacale*," the preparation of which is thus described: Take of hog's lard seven drachms, of oil of sweet almonds one drachm and a half, and of liquid ammonia (of twenty-five degrees) from five to six drachms. Melt the hog's lard, mix with it the oil, and pour them into a wide-mouthed bottle with a ground glass stopper; then add the ammonia, close the bottle, mix the contents together by shaking, and keep the mixture in a cool place.

The author's experience of the effect of his "pommade ammoniacale" was, like his observations on actual cautery, the subject of a memoir to the Royal Academy of Sciences, and of

report from the commissioners of that learned body, MM. Portal, Hallé, and Percy. They express themselves strongly in favour of the remedy. It is much more prompt in its action, they say, than cantharides, exempt from the distress occasioned by the absorption of this medicine, and capable of much more varied effects. If the skin is to be excited, perspiration re-established, and some subcutaneous engorgement to be dissipated, light and hasty frictions accomplish these objects. If a rube-facient effect is sought, its application for one or two minutes, spread thickly on linen, answers the purpose. In case vesica-tion is required, a similar application for five or ten minutes produces the effect. On the other hand, should absolute cauteri-zation be sought without alarming the timidity of patients or the prejudices of certain medical men against the use of fire, a somewhat longer application attains this end, so desirable in many neuralgias.

British and Foreign Med. Review, Jan. 1839, *p.* 65.

20.—TREATMENT OF RENAL DISEASE. By Dr. Bright.

Dr. Bright concludes his long but very interesting paper in the last Guy's Hospital Reports, with the following observations which seem to contain the outlines of his treatment of Renal Disease.

In concluding these observations, I may revert to the first object for which they were written; and trust that it will be collected from the various cases which have been adduced, that the conviction so often expressed, that the disease upon which the secretion of albuminous urine depends is in its commence-ment functional, is fully borne out; and that as long as it con-tinues in that state, it is capable of cure, or of relief, by various means. I have already, in a former paper, spoken upon the means by which this relief is to be administered; so that I shall here only briefly touch upon one or two points.

In the first steps, and the more acute forms of disease, bleed-ing may be considered the most important remedy: but this is, of itself, wholly inadequate to cure, unless we purge freely, and at the same time call upon the skin to do its duty. Of all the measures for effecting this latter purpose, the strictest confine-

ment to bed is the most effectual; and without that, I do not believe that, in this climate, we have a chance of cure. That preliminary, however, being adopted, antimonials are probably the best diaphoretics: but the liquor ammoniæ acetatis is likewise very useful; and a simple saline draught of citrate of potash or soda is, I believe, when diligently persisted in, of much avail: and the warm bath, in its various forms, may in many cases be brought to act most beneficially.

Amongst the purgatives, I shall only mention, that elaterium and jalap, with the bitartrate of potash, appear to me the most effectual. When the disease has made further progress, and has become chronic, perhaps organic, I should still recommend the greatest attention to the full effects of purgation, and to the state of the skin, and to protection from atmospheric changes; and I am more and more impressed with the probability, that if a complete change of climate were tried, great benefit might result. A voyage to the West Indies, and a residence in one of the more healthy islands, often produce a great change in the constitution, acting chiefly upon the pores of the skin. We have, at least, the negative experience, that confirmed cases rarely recover in this country, whatever treatment be adopted; and the skin being always more or less inactive, suggests most forcibly a change of climate as likely to promote its function. It is the doubt and uncertainty with which this disease is often viewed, that interferes with our recommending this bold measure, or, if recommended, interferes with its adoption: and I trust that the perusal of a few such cases as I have brought forward on this occasion will assist in producing a conviction of the actual existence of this disease, and of such an approach to incurability by any means we at present possess, that a physician should feel no more compunction in recommending the expatriation of his patient with albuminous urine, than he would in a case of incipient or threatened phthisis.

There are certain remedies, whose actions in this disease are less obvious than those to which I have referred; but many of them probably act by affording a degree of stimulant or astringent action to the kidney: of these, I may mention the mineral acids, as applicable in the declining stages of more acute attacks; the uva ursi, in its different preparations, in the chronic disease; the pyrola umbellata, and the diosm acrenata where great irritability of the urinary organs exists—a remedy

hich I have been led to adopt, in many cases, from the very vourable reports of Sir Benjamin Brodie: nor have I been sappointed of some good effect, though I should perhaps nploy with greater confidence a long-continued course of soda, nium, and uva ursi. One thing, however, must be kept in ind, that whatever remedy is given to overcome a disease so ronic and confirmed, must be administered with exemplary atience and perseverance.

Guy's Hospital Reports, No. 10, *April,* 1840, *p.* 160.

Dr. Barlow, one of the editors of these reports, strongly ecommends tartarized antimony in this formidable disease: ith respect to which he says—

It is not merely as a diaphoretic that I would recommend the rtar emetic in the acute form of this disease; it is on account f its power of lowering the heart's action, as well as "its local ffects upon the capillaries, when it reaches them through the irculation;" whereby it diminishes the inflammation in the perficial capillaries of the lining membrane of tubuli uriniferi: r that such a state of the tubuli exists in the early stage of ne disease is, I think, made apparent by the condition of the idneys, in all the recent cases which have been examined.

With regard to the dose of the remedy, I would observe, nat where the pulse is hard and full it may be given in such oses as in the first instance to produce nausea; but where there s a low state of the system, the antimony may be given in smaller oses, frequently repeated, so as to reach the capillaries without producing depression. I have never found it necessary to ive more than half-a-grain at a dose to an adult; neither have attempted to push it to the greatest extent possible;—the bject not being to give heroic doses of the remedy, but, if ossible, to cure the patient.

At the same time, I cannot conclude without hazarding the xpression of the belief, that the chance of recovery may in ome measure depend upon the particular tissue of the organ ffected; for it is by no means improbable that there may be arieties of the disease, as different in that respect as pneumonia nd bronchitis.

21.—REMARKS ON SARSAPARILLA. By Dr. Hancock.

(Abridged from the Med. Bot. Transactions.)

Dr. Hancock proceeds first to treat of the best way of choosing good sarsa; then of obtaining the active properties; and thirdly of the methods of preparing it for medicinal use. We confine ourselves at present to the last subject.

1. *Method of preparing sarsa by fermentation.*—The root is bruised and fermented with guaiacum bark, sassafras (ocotea) and several other plants of the country, adding liquorice, brown sugar, and a little yeast to hasten the fermentation; on these ingredients, when well bruised, pour boiling water; let it be stirred occasionally, and stand for a few days in the sun, or an equivalent heat, until fermentation is produced, after which it is fit for use, and the patient may commence by taking a small draught twice or thrice a day, and should increase the dose till some effect is perceived.

It usually produces an increased perspiration, and generally augments the urine and alvine discharge. Whether the disease arise from a rheumatic, scorbutic, syphilitic, or other foul taint of habit, or the abuse of mercury, the patient commonly obtains relief in a short time. The same remedy is there* found of great effect in removing obstructions of the internal viscera, as the liver, spleen, and kidneys. In ulcers and skin diseases, this compound is also a very efficacious remedy in a variety of chronical diseases.

2. *Another method may be employed, viz., by addition of acids.*—Although fermentation is one of the most efficient means of obtaining the essential or more active properties of vegetables, it is not always convenient, requiring time for the preparation. I shall therefore notice another process, which I have experimentally found to be the most ready and effectual method for extracting the active properties of this, as well as of vegetable remedies in general; that is, to infuse the bruised roots in boiling water, adding a little spirit and muriatic or sulphuric acid, and press them; repeating the infusion in boiling water, and again pressing out the liquor. A quart of this preparation will have more effect than gallons of the decoction prepared by the direction of the Pharmacopœias.

* At Angostura and at Para on the Amazon.

3. *A Compound Infusion may thus be prepared.*—By addition of wauk root (Bignoniacea,) kuruta, bark of guaiacum, of mara or haiowa balsam, with liquorice and aniseeds; it forms a most valuable alterative, restorative, and antihectic remedy; one of great power in gout, rheumatism, cutaneous eruptions, internal or external ulcerations, and even in vomica of the lungs, and is very efficacious in obstructions of the viscera. It is also a powerful remedy in syphilis, and one that does not require the assistance of mercury. This will scarcely be assented to, but the assertion would not be advanced had I not seen its effects fully demonstrated. It operates without deranging the general health, and forms the best remedy against the ill effects of mercury. Yet this may occasionally be given in a very light course, (avoiding salivation,) or antimonials, alternated with alkalies, chalybeates, or with iodine: affording a method which may be resorted to, with much confidence, in leprosy, in foul or cachectic diseases, and in glandular, scorbutic, and cutaneous affections. Its effects are greatly assisted by the employment of the vapour bath, warm clothing, a moderate bland diet, the use of milk and vegetables, barley water, &c. With such a regimen it may be employed with vast advantage, not only in chronic complaints, but also in many inflammatory ones; and with the above-mentioned auxiliaries it is one of the most effectual remedies in *scrofula.*

The preparation will remain unchanged for a great length of time, by adding a few drops of siruba, or essential oil of cloves, which, with the acid, prevents the growth of vegetable fungi, or any elementary change.

Muriatic acid (or sulphuric) is often added as an adjunct to strained infusions and decoctions, but in the method herein described, i. e., by *previously* adding the acid, we evolve the alkaloid or the more active principle of the vegetable, which, in general, is found to be but partially soluble in simple water; at the same time other medicinal principles are preserved,—not rejected, as in the process for obtaining quinine and other alkaloids: for we should not assent to the false induction, that these (quinine, &c.) contain all that is valuable in the substances operated on. If such were the case, our infusions and decoctions, as hitherto prepared, would in fact possess little or no value; for the quinine, it is found, remains in the dregs or residue of the common decoction or infusion of cinchona.

I should judge then, that the method now recommended might be employed with important advantages in forming most other vegetable infusions, decoctions, syrups, and extracts.

The author then advances an opinion, with which we cordially agree, and in which almost every practical man will coincide. He says:

A judicious *combination* of old remedies is of more importance, perhaps, than researches directed to new discoveries; and to this point I could wish to draw the attention of the Society, because, since men have perceived the folly of ancient polypharmacy, as instanced in the Mithridates, Theriacs, &c. they have run into the opposite extreme, and substituting endless chemical and pathological speculations, they have rendered medicine of less avail, by extreme simplicity of prescription; hence, notwithstanding the *march* of modern science, it does not appear that the practical or only useful part of medicine is much advanced; I should rather say, that, in point of real utility or efficiency, it has retrograded since the time of Sydenham, The fact is, that along with many absurd reveries of the ancients, the moderns have rejected their practical rules, formed on the experience of preceding ages; for it must be acknowledged, that the more useful part of medicine has been derived chiefly from empiricism, that is to say, from observation and experience.

Transactions of the Royal Med. Bot. Society, vol. 1, *p.* 41—48.

22.—REMARKS ON CONIUM, By W. H. Judd, Esq.

(Abridged from the Med. Bot. Transactions.)

After detailing a number of experiments on animals, to show the value and strength of the extract of conium, as procured from different druggists, Mr. Judd draws some practical conclusions, which will be read with interest. On comparing the effects of conium with opium, we find a most remarkable difference after death, as will be seen by the following comparison.

A comparative view of the effects and changes after Conium, and of those after Opium.

Conium.	Opium.
Brain unnaturally free from blood; Ventricles almost dry;	Brain gorged by blood. Ventricles full of serum.
Lungs empty of blood;	Lungs so full of blood that it runs out in a stream on cutting them.
Stomach, its villous coat and œsophagus, white;	Villous coat, and œsophagus red.
Right side of the heart gorged by dark blood, left empty;	The heart's cavities all containing blood.
Heart dead to stimuli;	Heart's state as to excitation unknown.
Intestines active and white;	Intestines inactive, red and inflamed.
Blood, dark and fluid in both veins and arteries;	Blood found fluid at times, not always.
Death of the heart;	Death of the brain, I conclude, from the other symptoms.

From comparing the state of the viscera, we have here positive proof that the effects of preparations from these two plants differ widely. Indeed I much doubt whether conium, which has hitherto been classed as a narcotic, is, by its direct action, capable of producing sleep, by rendering the vessels of the brain turgid, as opium does: on the contrary, for in the animals experimented upon, the brain was found exsanguined and blanched after conium had been given to an extent that destroyed life. During these experiments I observed a defluxion being produced in the human subject, and a cough being kept quiet from breathing the vapour of the muriate of conium, which pervaded the room in such volume that it clung to our skins, tasted upon our lips, and impregnated our clothes for days, yet no disposition to sleep was induced by it. Last night (April 4th) I took a dose of the best extract to ascertain its effect. At first I felt excited and kept awake, and the heart acted during that time quicker than natural; next the breathing became slower, the contractions of the heart feeble, and the pulse small and weak. I fell asleep whilst counting my pulse, and found on waking in the morning that I had just overslept my usual time by one

hour. Conium in small doses, by its action on the heart, lessens for a time the volume of blood sent to the brain and muscles, and thus undoubtedly produces a state of quietude that disposes in a remarkable degree to repose.

Mr. Judd concludes his interesting paper by drawing our attention

To the vast power displayed (during the experiments) by its extract in lessening the quantity of blood sent to the brain and medulla spinalis—to its lessening the forcible contractions of the heart: virtues possessed by few medicines with which we are acquainted; to which evidence I may add the no trifling experience of Professor Christison, when he says that "Conia exhausts the nervous energy of the spinal chord." These physiological facts at once suggest that conium should prove an invaluable remedy in the treatment of three very fatal diseases for which we possess no specific, viz., hypertrophy of the heart, phrenitis, and inflammation of the medulla spinalis. The latter disease is one that, like Atropos in the dark, cuts the thread of life in many cases wherein the cause of death (the theca not being opened) is never discovered. In the treatment of such diseases, after depletion, I should recommend that small doses of the extract of conium, without waiting for the action of purgatives, be steadily repeated every two hours, until the action of the remedy is manifest in the system, or mitigation of the symptoms ensue. In hypertrophy of the heart, the remedy should be given rather more cautiously; and by properly-graduated doses, I imagine we might regulate the hurried and forcible contractions of that viscus, and bring its action almost to nature's standard. Lastly, habitual costiveness, and want of secretion in the bowels, may often be remedied by two or three grains of extractum conii, with as much pilula hydrargyri given at bed-time; this will be slowly followed by regular evacuations. The above combination of drugs acts particularly upon the rectum; and, when the dose is too often repeated, produces in some a sort of chronic dysentery. I throw out these hints to the profession after having witnessed the power of conium in reducing the action of the heart, to exsanguine the brain and medulla; and may safely assert, if physiological experiments teach us any thing as to the nature of remedies, that then is conium a valuable auxiliary in these diseases.

With respect to the time and way of gathering the conium, which is of the greatest consequence, if we wish for the full power of the drug, Mr. Judd says:

I should say in June, just as it breaks into flower, and those growing in dirty, boggy situations should be preferred, as they are the most potent. This has been practically proved by a medical friend of mine.* It is undoubtedly needful that the collectors should taste each stem as they gather it, and cast away such as are tasteless, and too young to be sapid. A learned gentleman of this society in one of his excursions, (I allude to Dr. Hancock,) had the ingenious curiosity to taste stems of growing conium, on the banks of the Bristol Channel; and he kindly communicated to me, that late in the year, about September, few of them possessed any flavour, and that many of them then were totally useless.

Med. Bot. Trans., vol. 1, *pt.* 4, *p.* 150—157.

In the Medical Gazette, for May 22, is a letter from Mr. Bentley, oper. chemist, in which he states that the action of conium depends on the quantity of conine which it contains.

He further says:

The best and most effectual mode of administering conium is, I conceive, by expressing the juice, and preserving it with alcohol; some of which I have had the honour of submitting to the best authorities on the subject: which, although resembling in colour the tinct. zingiberis of the London Pharmacopœia, contains a very large quantity of conine, and is a very energetic and certain preparation. To ascertain whether conine be present in the extract, it is only necessary to rub a small quantity in a glass mortar with liquor potassæ, when a peculiar odour, somewhat resembling animal oil, will be given off; by bringing the vapour of hydrochloric acid in contact with which, dense white fumes will be given off, clearly demonstrating the presence of conine. The evaporation of this juice under the exhausted receiver of an air-pump, produces an extract of a dullish brown colour, but possessing great power, which can only be referred to the conine which it contains, and which may be readily recognised by the above admirable test, first proposed by Dr. Osborne. *Med. Gazette, May* 22, 1840, *p.* 346.

* Mr. Goodger, late of the Marylebone Infirmary.

23.—ON THE BARK OF THE ULMUS CAMPESTRIS, (or Elm.)

By G. G. Sigmond, M.D., &c.

Dr. Sigmond thinks that our island abounds with medicinal agents, which have not been sufficiently attended to by us, and among the rest is the bark of the elm, and especially the inner bark, which abounds with a mucilaginous principle, which disappears on being too much boiled. The best time to gather it is in spring, and the most desirable parts are the smaller branches and twigs. He says:

Four ounces of fresh elm bark bruised, boiled in four pints of water form a thick decoction.

In cases of scaly disease the *Ulmus campestris* is more particularly serviceable; in all the varieties of lepra it produces a most marked influence. In a young girl admitted into the hospital,—a case which had excited amongst my pupils the most marked interest as well from the urgency of the symptoms as their inveteracy—it quickly proved the truth of my previous expectation. The disease had commenced about two years before her admission; notwithstanding she had enjoyed opportunities of being under the care of some experienced physicians, the skin had never once been free from large dark brown scaly patches, which were copious upon the legs and arms, and more especially upon the knees and elbows. The bend of the arm presented a very singular appearance from the irregularity of the surface of these scales, formed from the coalescing of a number of small ones and the deep furrows made in their centre. These thickened laminæ were, at the time of her admission, about the size of a half-crown upon the joints, whilst smaller scaly patches extended themselves over the greater part of the extremities; they were nearly of a circular form, their borders a little elevated, and whilst the centre wore a shining appearance, the circumference had a red and somewhat angry surface: this state was unaccompanied by pain, by itching, tingling, or any sensation, besides that of stiffness on moving the limbs, and some degree of soreness when any but smooth surfaces came in contact with them: the little girl was in every other respect in good health, enjoyed a good appetite and sound sleep, but had formerly occasionally complained of pain on her

right side. The bowels were regular, the urine straw-coloured, and gave very slight indication of the presence of acidity. Three times in the course of the day four ounces of elm bark in decoction were administered; the recovery was rapid: once or twice only were cathartics used, for they generally determine too much to the bowels, and hence prevent that action upon the kidneys which I believe to be essential to the operation of the bark. The scaly crusts gradually detached themselves from the skin, leaving the cuticle red and shining, which began from the centre to assume a more healthy appearance; the larger dark brown patches were the first to fall off, and as the skin began to recover, only large red lines in the circumference were visible.

I have likewise found it very serviceable in tinea capitis, and more especially when it has been used as a wash externally. In those extensive papulous eruptions, known by the name of lichen, which usually terminate in scurf, the lichen simplex, which attacks the face and skin sometimes periodically, very quickly yields to the remedy; and in the milder cases of erysipelas, when the constitution has not in any way participated, I have been in the habit of using this remedy with a success that has now enabled me to lay the result of my observations before you.

In those affections of the skin where the papulæ are in a state of high irritation, amounting to inflammation, I have uniformly found lotions or applications of mercurials, such as the unguentum hydrargyri nitratis, or ointments of lead, to be rather injurious than beneficial; in such cases it is that I have observed so much benefit from the bark of the elm, internally taken and externally applied, and in almost every stage of cutaneous disease. There are likewise some states of the skin in which papulous eruptions and erythematic blushes are indicative of diseased states of the internal mucous membranes, and likewise of various dyspeptic symptoms. Thus we observe where leucorrhœa exists, or where disease has been induced by dram-drinking, that redness of the skin and disordered functions of the skin are visible; in such instances the use of the elm bark for some weeks, with attention to diet has been productive of the best consequences, and I have had the satisfaction of seeing some of those eruptions, which have for years baffled every attempt of the medical man, yield to a determined course of the elm bark. It is of

importance to continue it for some time, and to attend to the state of the bowels during the period in which it is taken. The state of the urine should be carefully observed; and it will be found that, after some little time, much acid will become developed, which most probably is determined from the blood, and would have been deposited in the skin and have produced some of those disordered states which the elm bark appears destined to avert.

Med. Bot. Trans., vol. 1, *pt.* 4, *p.* 169—172.

24.—ON THE FUCUS AMYLACEUS, OR CEYLON MOSS.

By W. B. O'Shaughnessy, M.D.

Dr. O'Shaughnessy, of Calcutta, has written an interesting article in the last number of the Medico-Botanical Transactions, on this useful vegetable. His analysis is as follows:

Vegetable jelly	54.50
True starch	15
Wax	a trace
Ligneous fibre	18
Gum	4
Sulphate and muriate of soda	6.50
Sulphate and phosphate of lime	1
Iron	a trace
Assume the traces of wax, the iron, and loss, at	1
Total	100

In the first place, from the tendency of pectin or vegetable jelly to form insoluble compounds, with saline and earthly bases, it is necessary to steep this fucus for a few hours in cold rain water, as the first step in its preparation: this removes a large proportion, if not the entire, of the sulphate of soda, leaving all the gelatine and starch. It should then be dried by the sun's rays, and ground to a fine powder; I say ground, for cutting or pounding, however diligently or minutely performed, still leaves the amylaceus globules so mechanically protected, and so closely involved in an external sheath of tough ligneous fibre, that scarcely a particle of the starch can be extracted by

boiling, even though the decoction is prolonged for several hours. For the experimental proof of this statement, the reader is referred to the analysis, Sec. B., 1, 2, 3, and 5.* When ground, on the contrary, boiling for twenty-five minutes or half an hour dissolves all the starch and gelatine; the solution, while hot, should be passed through muslin or calico, and thus the ligneous fibre is removed: lastly the strained fluid should be boiled down till a drop placed on a cold surface gelatinizes sufficiently.

The following is the method by which the nutritive qualities are best obtained:—

Put into a clean stew-pan a table-spoonful of prepared marine moss, add to it a pint and a half of hot or cold water, boil it gradually for twenty minutes, then take a little in a spoon and let it cool for a minute or two to see if the liquid is sufficiently boiled to congeal firm; if not, let it boil until it is, then strain it through a cloth into another stew-pan while it is warm, so as to draw all the liquid from the sediment produced by the moss. The sediment to be well squeezed. Add to the liquid a table-spoonful of fine loaf sugar, half a table-spoonful of lemon juice, a table-spoonful of sherry or not at the option of the maker, add a small piece of lemon peel, and a very small piece of cinnamon; boil the whole gradually for ten minutes, and pass it once or twice through a piece of flannel into a basin or tumbler, and in ten minutes it will be fit for use.

Should it be required to be very clear and transparent, (which is not necessary for an invalid, as by clarifying it partly loses its strength,) add the white of an egg, well beat into froth, before the second boiling, and taking care that after the second boiling it rests for some minutes by the fire-side, with some hot charcoal on the cover of the stew-pan so as to render it perfectly clear; otherwise, by adding the white of an egg, it will have the appearance of milky white, which is not so pleasing to the eye, although in quality the same. When clear and of a lemon colour, pass it two or three times through a flannel jelly-bag: let it cool, or it may be taken in a liquid state, if preferred by the patient.

This jelly is equally good for the table as for the sick chamber, and will congeal in the hottest day without ice. Blancmanges and Italian cream can be made with this marine moss

* For which see Med. Bot. Trans., pt. 4, vol. 1.

without the addition of isinglass; but in that case the jelly must be made much stronger before it is mixed either for the blanc-mange or cream, and at all times it must be blended when it is warm. The quantity it will take for a mould of either is two table-spoonsful of moss to a quart of water, and that reduced to half a pint, which will cost about sixpence only, whereas the isinglass would cost at least three shillings.

The Ceylon marine moss has also this great advantage over isinglass or any other moss that is known at present, that it will stand firm and good for twenty-four hours in the hottest days we have in India; whereas it is well known that neither isinglass nor any other will stand firm for half an hour, not even with the aid of ice. The prepared moss also possesses another great advantage above all others, that a most delicious gelatine can be made from it in about fifteen or twenty minutes; whereas it would take hours before any sort of gelatine could possibly be obtained from any other source, either animal or vegetable; and therefore, for the sick chamber, I consider this substance a very great acquisition, where time with an invalid is often an object.

The Ceylon marine moss has been pronounced by the whole of the faculty of Calcutta to be unequalled for its delicate and nutritious qualities, and it has been particularly and highly recommended for the use of the sick. When all other nourishment has failed, this has proved successful; and I have no doubt that, when the article is better known by the faculty of England, it will be much more appreciated, and will receive the same patronage and support which it has done from the whole of the faculty in India for the last thirteen years.

Med. Bot. Trans., vol. 1, *pt.* 4, *p.* 184—193.

Appended to this account are certificates from the most eminent men in Calcutta, all highly approving of the article.

25.—CORRECT VACCINATION AND IMPEDIMENTS THERETO.

From the Report published by the Provincial Medical and Surgical Association.

The only perfect test is that which arises from the insertion of the variolous lymph, but as that is on many accounts objectionable, it is better to find out, if possible, some other.

The first to which we would advert is the regular progress of the vaccine vesicle, and we would lay it down as an axiom never to be forgotten, that no one is qualified to speak of its effective character who has not, at suitable periods, noted this progress. The genuine disease can only be produced by pure lymph from a regular source. The time for taking this lymph, according to Dr. Jenner, is between the fifth and eighth days, and before the formation of the areola. Others have recommended the use of lymph taken at a much later period; but this we believe to be a very questionable practice, and ought never to be followed. It is very true that the affection may be propagated by virus found in the scab, but this only succeeds when active lymph is preserved in a dried state within the scales.

A test, dependent upon the successful progress of vaccination, was very early noticed by Dr. Jenner, and subsequently brought forward by Mr. Bryce, of Edinburgh. He proposed that some fresh vaccine lymph should be inserted into the patient a few days after the first vaccination. This practice was founded on the observation that the second vaccination proceeds with accelerated speed, provided the first has taken effect. It is a very simple and beautiful illustration of the constitutional effects of vaccination, and deserves to be encouraged. An experienced eye will for the most part be able to detect any deviation from the true vesicle. Unfortunately, the means of making correct observations are often denied to medical men, and any thing that would secure greater attention to this branch of the subject would be of high value, and unquestionably would have prevented many of the failures that have recently taken place.

The second point demanding unvarying assiduity, is the character of the lymph employed. It never ought to be taken from a vesicle which deviates in the least degree from the perfect standard, nor from a patient labouring under any cutaneous disease. It is to be feared that these rules have not been punctually observed; and that deviations have been propagated, which afford varying degrees of security, according as they approach to or recede from the healthy character.

A third point which ought ever to be insisted upon, is the leaving one or more vesicles to run their course without being in any way disturbed. This canon was introduced at a very early period, but we have more than cause to suspect that it has been often defeated, either by the carelessness of parents, or

the hurried manner in which vaccination is sometimes performed.

Another point on which perhaps too much stress has been laid, is the appearance of the cicatrix. It is true that after regular vaccination, it generally assumes an uniformity of aspect well known to medical men. The medical officers of the army and navy are compelled to rely a good deal on its appearance; and all recruits on whom it is supposed not to be perfect, are subjected to vaccination. The experience obtained from these services, is, so far as it goes, in favour of information derivable from this criterion. We are satisfied, however, that by itself it ought never to be absolutely trusted, and we must repeat here what we have already observed, that nothing but a watchful inspection of the progress of the vesicle will justify any one in speaking with confidence of the security likely to be attained.

From all we can learn, we are inclined to believe that though the presence of a perfect cicatrix is not a sure sign of protection, its absence must be held to speak strongly against the existence of vaccine influence. The peculiar appearance of the cicatrix is caused by the reticulated or cellular structure of the vesicle. The same organization occurs also in variola. Now, if the vesicle has been repeatedly opened or broken, the ulcerative process that succeeds destroys the organization of the cells, and leaves a cicatrix nearly smooth, instead of the well-defined indented surface, which may for the most part be seen after complete vaccination. It may also be observed that many persons who have been extensively marked and seamed by small-pox have had subsequent attacks of that disease, proving that after perfect human small-pox, as well as after perfect cow small-pox, a second attack may occur.

Our correspondents amply justify us in laying down the foregoing principles; and we also think from the evidence before us, that vaccine lymph, though passed through a great number of subjects, and used for a great number of years, does not necessarily become deteriorated. This, however, can only be said when unceasing attention is paid to every successive transmission; for if a deviation commences, it may be perpetuated, and afford a gradually decreasing protection. There is no doubt that lymph of this kind has been often used. We have satisfactory illustrations of this truth from several of our returns.

The influence of cutaneous diseases on the progress of the vaccine vesicles is a point, too, demanding greater attention than it has hitherto obtained. At a very early period Dr. Jenner discovered that the affection was very much modified in its progress by the scaly tetter, and those affections described by Dr. Willan under the term *psoriasis,* as well as those vesicular eruptions commonly called herpetic. He observed that vaccination performed on a skin occupied by any of these diseases, " produces every gradation from that slight deviation from perfection, which is quite immaterial, up to that point which affords no security at all."

It does not uniformly happen that vaccination is thus impeded by the pre-existing cutaneous maladies; but wherever the disturbance is in the slightest degree manifested, the vaccination ought to be distrusted, and repeated as soon as the skin has been brought into a healthy state.

It is a very long time since these truths were impressed upon the public mind; but we have had many proofs that they are not yet sufficiently considered; it is, therefore, our duty to recal them. Dr. Jenner's last publication particularly refers to this point of practice; and we know that it caused him much disquiet that his admonitions and instructions were so little heeded.

We will conclude this subject by an extract from one of Dr. Jenner's unpublished letters. " The greatest of all impediments to correct vaccination is that which arises from an herpetic state of the skin; indeed compared with this, all the rest are as dust in the balance; and when the rules which I have again and again laid down respecting this point, and for so long a period, are attended to, then, and not till then, will the confidence of the public be fully established as to its preventive power."

Med. Gazette, Feb. 21, 1840, *p.* 825.

26.—CASES OF MORTIFICATION OF THE MALE GENITALS,

Giving rise (as is supposed) to fatal Fever by Infection. By Robert Paley, M.D.

The first case was that of a stout man, aged thirty, by profession a teacher of music, residing in a village near Halifax, and a married man of very regular habits; the surgeon who was in attendance informed me that he had seen him, for the

first time, on the preceding day, and that the patient informed him that it was only on the previous day that he had first felt some uneasiness in the scrotum; that it very soon became enlarged and inflamed, in which state it was when the surgeon first saw it; he immediately applied a dozen leeches, and afterwards ordered fomentations and purgatives. On the following day I was consulted, being the third day from the commencement, when the whole of the scrotum and the penis had assumed a dark red colour, with here and there a black gangrenous spot; the tongue was dark coloured as in typhus, and the pulse indicated debility. We agreed to give our patient decoction of bark with porter, and to apply an ale poultice, with lint dipped in melted unguentum resinæ flavæ. This plan was continued, with the occasional addition of sp. terebinthinæ to the ointment, until the whole of the scrotum, prepuce, and a considerable part of the penis, sloughed off. The patient's strength was supported, and in the course of a few weeks he recovered so far as to live for seventeen or eighteen years, when he died, I believe, of phthisis. His death took place some years after I had left that neighbourhood.

The second case was that of a farmer about thirty-five years of age, residing a few miles from Ripon, who thought that he had caught cold, which had brought on some itching of the penis and scrotum, both of which, in the course of two days, became very much inflamed and enlarged; on which account he sent for a surgeon, who took blood from the arm, applied fomentations, and gave him purgative medicines. On the following day, to his great surprise and dismay, a gangrenous spot appeared on the scrotum. The blood taken exhibited no indication of inflammation. Before he left the house I saw the patient with him, and told him what, in my opinion, would be the result, which he could scarcely credit: I then gave him an account of the former case, and as far as lay in my power, put him on his guard. In this case the tongue exhibited the same appearances as in the former. We gave decoction of bark in the porter, and applied an ale poultice, with dressings similar to those employed in the former case. The inflammation extended along the abdomen as high as the umbilicus, above which there was an eruption resembling the ecthyma cachecticum of Willan. Suppuration took place above the pubes, the whole of the scrotum and prepuce sloughed off, and the patient is convalescent.

During my attendance in the first case, one morning, whilst the surgeon was dressing the patient, the scrotum and penis being in a gangrenous state, a messenger came to request him to go to a woman in labour, who resided about half a mile from our patient, and he obeyed the summons without loss of time. Four or five days after this, on meeting again, he said, "you will recollect that I was sent for to a woman in labour on such a day." I replied yes, and what of that? "She is dead; every thing seemed to be going on well until yesterday, when she was seized with violent pain in the region of the uterus, and she died before I had time to do anything to relieve her." In the course of two or three days, on meeting again, he said, "It is very odd, Dr. Paley, I have lost another patient in the same unaccountable way as before;" and the next morning, at our meeting, he stated that he had another patient about two miles off seized in the same manner, whom he requested me to visit along with him. After seeing his patient, I told him that she was labouring under puerperal fever, and before we left the house he was sent for to visit another woman whom he had attended in labour in the same village. I accompanied him, and found her also the subject of puerperal fever. I believe that he had in all six cases of this disease.

I enquired of nearly all the general practitioners in Halifax and the neighbourhood if they had any cases of puerperal fever, but not one could I hear of; indeed, most of the medical men owned that they had never seen a case of it in the whole of their practice. About the same time I was requested to visit a married lady, aged fifty-four, who resided in the same village as the teacher of music, betwixt whom, however, there had not been any intercourse, but she had visited repeatedly the first woman who had died so unexpectedly. I found that she had been seized, on the day previous to my seeing her, with violent pain of the bowels, which had continued to increase in spite of the means employed. When I arrived she was *in articulo mortis,* and expired before I left the room, which was twenty-six hours after the time she had first felt any sort of uneasiness. In the present day this case would very probably have been considered as Asiatic cholera; and it is to be regretted that we were not permitted to make a post-mortem examination.

There is not the slightest doubt on my mind that the surgeon who was in attendance was the means of communicating some-

thing (call it what you please) from the patient labouring under the disease of the scrotum to the lying-in women, which in them produced puerperal fever; and with regard to the lady last mentioned, the first case of disease after parturition, which in all probability was that of puerperal fever, produced in her a species of enteritis, which in its progress bore a considerable resemblance to the disease of the music-master.

I pointed out these circumstances to the surgeon, and at the same time advised him to go from home two or three weeks, and to have his clothes washed and fumigated; he did so, and the plague (for such it seemed) ceased. These circumstances I also mentioned to the surgeon in attendance on the case which has recently occurred in this neighbourhood. I advised him to wash his hands well previous to leaving the house of his patient, and not to attend any woman in labour or after her confinement without first changing his dress. Notwithstanding this precaution which I believe he rigidly observed, I received a note from him a few days ago, stating that he had some unfortunate cases of puerperal fever.

Med. Gazette, Dec. 6, 1839, *and British and Foreign Med. Review, April* 1840, *p.* 571.

27.—ON DISEASE OF THE BRAIN DEPENDENT ON DISEASE OF THE HEART.

By Robert Law, M.D., Fellow of the College of Physicians, Physician to Sir Patrick Dun's Hospital, &c. &c.

Dr. Law brings before the profession in a very able paper in the *Dublin Journal of Medical Science*, for May last, his views of those diseases of the brain which are chiefly owing, not, as is generally supposed, to the *excess* of blood in the brain, (which excess may arise either from too great a determination to it, or from a congested state of it owing to obstruction of the blood in the lungs or other parts, from disease of the heart,) but to the *deficient supply* of it, arising from disease either of the sigmoid or mitral valves.

He states that Dr. Corrigan was the first who accurately described this disease and the perniciousness of the usual mode

of treating it by depletion, instead of by stimulation: and as it is a very important pathological distinction, and which is not sufficiently known or attended to by the profession, we take the liberty of placing a few extracts before our readers.

If we are called to a case of diseased brain, accompanied by hemiphlegia, or symptoms which would at first sight indicate congestion or inflammatory action, it is our duty immediately to ascertain if these symptoms may not be owing to disease of the heart or valves; and if we suspect that there is disease of the aortic valves, causing hypertrophy of the left ventricle, and preventing the blood reaching the brain with sufficient ease: or if we suspect either a too open or a too contracted state of the mitral valves, causing in the former case a regurgitation of blood from the ventricle, and in the latter case a difficulty in its course into the ventricle from the auricle,—we must be on our guard not to deplete but to stimulate; as is very clearly shown to be correct practice by Dr. Law in several cases which he relates. He affirms that if there be obstruction to the flow of blood before the arteries going to the brain are given off, that disease of that organ will not be owing to a fulness of blood in it, but to a deficiency: but on the other hand, if obstruction exist beyond the origin of the cerebral arteries, then the regurgitation of the arterial blood may very probably be towards the brain.

Dr. Law says:

Pathologists have almost entirely confined their attention to the excess of the normal quantity of blood or the congestion produced in organs by disease of the heart, but have overlooked the deficiency that must necessarily result to other organs, and consequent hurt to their nutrition and function. Thus in disease so affecting the mitral valve as to lead to a considerable narrowing of the opening between the auricle and ventricle, exclusive attention has been directed to congestion of the lungs, liver, &c.

and no notice has been taken of any ill effects resulting to other organs from their supply of blood being proportionably diminished; a diminution, the expression of which we have during life in a small pulse, and in the midst of which the beat is sometimes altogether wanting, denoting the almost entire retrograde motion of the blood from the ventricle into the auricle through the imperfect valvular apparatus; and which we find indicated after death by the aorta being so reduced in size as not to exceed the common carotid; a diminution which it has undergone in obedience to the physiological law which establishes a relation between vessels and the size of the stream of fluid which they convey. It is to the effects of this diminution of the quantity of blood upon the brain to which we would now direct attention, a point of pathology which we believe to have been hitherto almost, if not altogether, overlooked.

The first case which attracted the attention of Dr. Law, was in the Richmond Hospital, in 1834, and from this he drew the conclusion—

That ramolissement of the brain, the result of disease of the heart, is not the invariable effect of the blood impelled to the brain with undue violence, but that it sometimes takes place under precisely opposite circumstances. The anemic condition of the brain, and the smallness of the aorta and the branches proceeding from it on the one hand; and the congested state of the lungs with the pulmonary apoplexy on the other, lent their united testimony in proof of this. By as much as the brain was deprived of its due supply of blood, by so much were the lungs over supplied; and that this state of things was of considerable duration we concluded from the diminished size of the aorta and its branches, which was a physiological accommodation of these vessels to the diminished stream of blood that they had now to carry, the greater proportion of which regurgitated or was driven back through the imperfect mitral valve. The lungs in fact in this case were very much in the condition of the brain, when affected from the increased impluse of a hypertrophied left ventricle; the pathological conditions of the two organs were reversed, the impulse of the hypertrophied ventricle being directed backwards towards the lungs, instead of in the direct course of the circulation and towards the heart.

Dr. Law agrees with Dr. Corrigan in the tonic mode of treating these cases. He says:

To weaken the system generally, would be to weaken this propelling power of the ventricle, and so disable it from sending on even the smaller quantity of blood, which the unimpaired ventricles could discharge through the diminished aortic orifice. We, in fact, see in the lesion the system deprived of its due supply of blood in two ways—both by the diminished quantity of blood that passes from the ventricle into the artery, and by the passing back again into the ventricle of much of that diminished quantity. We see the pallid ensangueous face, with the frequent symptom of vertigo and giddiness added to all the physical signs of hæmorrhage, all pointing to the same treatment that the system, when it has been weakened by hæmorrhage, requires.

As we fully admit that serious cerebral mischief will result, and has been proved in many instances to have resulted, from an hypertrophied left ventricle impelling the blood with undue force to the brain, a first point in all these cerebral affections, whether of apoplexy or paralysis, ought to be, to determine the actual state of the heart, if it be in a normal healthy condition; and if not, in what its deviation from such state consists. If it be in a hypertrophied condition, we have physical signs to declare it to us. If this hypertrophy depend upon an obstruction to the course of the blood interposed between the heart and the origin of the vessels which convey the blood to the brain, whether this obstruction reside in the mitral valve or in the sigmoid valves of the aorta, the characteristic signs of these respective lesions will be present, and will serve to guide us. The pulse, especially, will yield us most valuable information. In cases of aortic valve disease, it will have the peculiar vibrating, jarring character which we have already noticed, and will also be visible in the longer arteries; while in mitral valve disease it will be small, and even sometimes be altogether absent, and never in proportion to the strength of the heart's action: whereas if the obstruction and consequent cause of the hypertrophy be more remote than the origin of the vessels leading to the head, the same impulse, which forcibly drives the blood to the brain, will be communicated to the vessels leading to the wrists and constituting the pulse. Here the force

of the pulse is a measure of the impulse to the brain. In no case of apoplexy or paralysis should a careful examination of the heart's action be omitted. When we find a full, strong pulse, with an equally strong action of the heart, attended with marked impulse, or shock, we may calculate upon that modification of this complication of cerebral and heart disease which has been so long noticed. And to the treatment in this case, we have only to repeat what we have remarked in a former number of this Journal, that while such an affection as apoplexy, and under such circumstances, demands the most untemporizing practice, yet the extent to which depletion should be carried has its limits; for we have not unfrequently met with cases in which a large abstraction of blood has been followed by a collapse or failure of innervation, which required to be immediately met by stimulants.

We have little to add to what we have already stated of disease of the brain, produced by disease of the aortic valves. Quite adopting Dr. Corrigan's views of the treatment and management of the cardiac lesion, from our practical experience of it, and from our theoretical views of its nature, and its close analogy of physical signs and constitutional symptoms with hæmorrhage, we have employed in it a tonic mode of treatment, especially so when the cerebral was added to the cardiac lesion. Observing, as we before remarked, a close relation of signs and symptoms not only between this heart affection and the physical signs and symptoms of hæmorrhage, but also between it and those diseases whose essence seems to consist in an imperfect state of the blood, and in whose treatment we find chalybeates especially beneficial, we selected our tonics from this class of remedies, and we conceive with some advantage. When the cerebral affection co-existed, we united the treatments suited to the complication. We found the cerebral affection to require an occasional carefully modified depletion, which generally consisted in a few leeches applied behind the ears. We also employed blisters to the nape of the neck; foot-baths, with mustard. Although the patient's flushed face generally suggested to us the necessity of these occasional means, yet we generally depended more on the state of the speech, which seemed to us to yield more certain indications. Our constitutional treatment, contemplating both organs, consisted in tonics and stimulants, united to other means, which the individual organs interested in the

complication seemed to require. The indications were to impart habitual strength to the heart, to enable it to propel the blood, as well as to sustain its regurgitation, and also to stimulate it. We also had to provide for the cerebral affection. We before remarked that we selected our tonics from among chalybeates, with which, as in the case of Dooley, we associated, but very sparingly, digitalis. The stimulants we employed were camphor, ammonia, infusum arnicæ, our hospital formula of cardiac mixture, composed of camphor mixture, carbonate of ammonia, and Hofman's anodyne, &c. &c. We combined James's powder, (as recommended by Dr. Cheyne in cerebral affections,) with carbonate of ammonia. But the combination which seemed to us especially useful in these cases was that of James's powder and extract of nux vomica; the former ingredient by determining to the surface, producing an equalization of the circulation, while the latter stimulated the heart, as a muscular organ.

The indications, where the cerebral lesion depends on an affection of the mitral valve, are nearly the same as when it depends on the aortic valves, except that when the mitral valve is affected, physical motions and moral emotions must be equally avoided, as producing that tumultuous action of the organ, and causing those congestions upon which depend the exacerbations to which this affection is so subject.

There are two conditions of the auriculo-ventricular opening in these cases—one consisting in its permanent contraction, the other in its permanent patency. In the one but a small quantity of blood passes from the auricle into the ventricle, and of that small quantity a good deal passes back into the auricle again; in the other there is a free passage to the blood from the auricle into the ventricle, and nearly an equally free one from the ventricle back into the auricle. The effect is nearly the same in both cases. The system is equally deprived of its due quantity of blood, while there are the same congestions in the heart itself and in the lungs. While the habitual treatment consists in the exact opposite of that which experience has proved salutary in aortic valve disease, in physical and moral quietude, we shall have to meet the tendency to syncope and failure of nervous energy by the same stimulants as in the other modification of the disease.

In a fatal case which is mentioned by Dr. Law as bearing on this point, and in which venesection from the external jugular

was performed, Mr. Carmichael differs from him, in his views both of the pathology and the treatment, considering that the brain was in a state of congestion from the inability of the right ventricle to send the blood through the lungs, which were also in a state of congestion from the disease of the left side of the heart. He consequently recommended unloading the cerebral vessels. Dr. Law takes a different view, and maintains that the death of the patient depended "not on the congestion, as the symptoms were not indicative of congestion, but upon the failure of the power of the left ventricle to propel the blood to the brain, and the consequent failure or suspension of innervation." The conclusions drawn by Dr. Law are :

1st. The pathology of the brain is in many instances intimately connected with, and dependent upon, pathology of the heart.

2nd. To limit the pathological relation existing between these two important organs to apoplexy, the result of hypertrophy of the left ventricle of the heart, is to narrow it much within its true limits.

3rd. Ramolissement of the brain occurs in connexion with diseases of the heart, whose effect is either directly or indirectly to diminish the flow of blood to the head.

4th. This cerebral lesion may be connected with either disease of the aortic or mitral valve.

5th. Hypertrophy of the left ventricle of the heart, in order to produce apoplexy, must depend upon some impediment to the circulation, placed at a greater distance from the heart than the origin of the vessels which convey the blood to the brain.

6th. When ramolissement of the brain occurs, in connexion with an imperfect or patulous condition of aortic valves, the close analogy that we trace between the physical signs and constitutional symptoms of this lesion and hæmorrhage, as well as the results of treatment, render it very improbable that the disease of the brain is the result of too much blood driven to it, and with undue force.

7th. When ramolissement of the brain occurs, in connexion with disease of the mitral valve, the state of the pulse, which,

as a diagnostic mark of this lesion, is habitually small, precludes the idea that the cerebral lesion is produced under the usual conditions of inflammation.

8th. While ramolissement of the brain occurs as a result of inflammation, hyperemia, &c., it occurs also under diametrically opposite circumstances.

9th. To confound such opposite modifications of disease, and to apply to them the same treatment, must necessarily lead to the most mischievous practical results.

10th. The circumstances under which we have seen ramolissement of the brain to take place, seem to identify it with gangrene, or death of a part consequent upon a diminution of its due supply of blood.

Dublin Journal of Med. Science, May 1840, *p.* 183—209.

28.—TREATMENT OF NERVOUS HEAD-ACHE FROM EXHAUSTION WITH ANCONITE.

By Thos. H. Burgess, M.D.

Read before the Westminster Medical Society.

After some preliminary observations on the causes of the different varieties of cephalalgia, Dr. Burgess stated that there were two conditions of body which appeared to him to be intimately associated with that form of nervous head-ache under consideration. The one was characterised by general anæmia; the other, by the debility consequent upon nervous exhaustion.

After describing the nature of the pain, and the procession of symptoms commonly observed in these cases, Dr. Burgess went on to say, that debility consequent upon nervous exhaustion, the second condition of body mentioned as associated with nervous head-ache, is by far the most fruitful source of the complaint. The *moral* exciting causes of this state are numerous. Anxiety, affliction, dissipation, grief, despondency, mental fatigue, disappointment, sudden reverse, despair, &c. in short all the passions which tend to depress the vital powers, induce a state of nervous exhaustion. Individuals of more advanced years than the former class (observes the author) of the nervous temperament, and of a high state of sensibility, are those who suffer most frequently from this variety. They describe the pain, in severe cases, as racking and exhausting, with occasional acute

twitches, and excruciating exacerbations, which are generally induced by sound, or by increase of light. There is also vertigo or giddiness, the sight is dim and confused, and black spots are seen rolling before the eyes; they are wholly incapable of mental or bodily exertion; they are sad, morose, and irritable in the extreme, and seek in repose and in solitude for an alleviation of their sufferings. The countenance of the patient is expressive of the most supreme misery. It indicates melancholy and despondency, and sometimes even assumes a suicidal aspect, and this outward and visible picture is but too often a faithful indication of the state of the feelings and emotions of the mind.

Treatment.—The author begged leave to introduce to the notice of the society a drug, the extract of aconite, which he found for several years past of the most incalculable service in the treatment of cephalalgia. It was not his object to extol this remedy as a specific in the complaint; he merely wished to draw the attention of members to the subject; and those who wished, could, with little trouble, put his statements to the test, and judge for themselves of the real value of the medicine, in cases similar to those which he had the honour of relating to the society. Dr. Burgess stated that he found the beneficial effects of the aconite materially promoted by the prior administration of the aloes and myrrh pill, in a small dose, so as to open the bowels gently, and encourage their peristaltic action; at the same time he took occasion to observe that he agreed with Dr. Copland that the digestive organs were considered much too generally as the source of the disorder. He also strongly recommended, in cases of young females, kalisthenic exercises, commencing with the gentlest, as urged by Mercurialis, and attention to the quality as well as to the quantity of the food.

The author stated that he usually commenced with half grain doses of the fresh extract, repeated every two or three hours. The preparation, by being kept for any length of time, loses, in a great measure, its remedial powers, and becomes black; hence, the dark colour of the extract commonly found in the shops. After noticing the different effects produced by this drug on the system, and the relative advantages of the alcoholic and watery extracts, the author concluded, by relating three cases of nervous head-ache, successfully treated with aconite.

Med. Gazette, Feb. 7, 1840, *p.* 765.

29.—TREATMENT OF INCONTINENCE OF URINE IN CHILDREN.

The late Baron Dupuytren, and also MM. Baudelocque and Guersent have recommended the use of cold shower-bathing as one of the most effectual remedies against this most annoying and frequently most obstinate complaint.

M. Lallemand, of Montpelier, has great confidence in aromatic bitters to which a small portion of brandy has been added, followed by active friction of the loins.

Underwood recommended the use of sea-bathing, of dry cupping, of blisters on the sacrum, and of electricity.

As internal medicines, the Spanish fly and the nux vomica have been unquestionably the most efficacious. The preparation of the latter, which has been most successfully used, is the extract in doses of from half a grain to four grains in the course of the day. The following two cases may be read with interest.

Case 1. A girl, twelve years of age, had been affected from her infancy with incontinence of urine, her general health being unaffected all the time. It would seem that no remedial means had ever been tried.

Dr. Ramaugé, who accidentally saw the girl at a house where he was visiting, recommended her to take one of the following pills, along with a wine glassful of infusion of quassia, three times a day :—

℞. Extracti nucis vomicæ, gr. viii.; Oxydi ferri nigri, ʒ i.; Pulv. Quassiæ ʒ i.; Syrupi absinthii, q. s.
In pilulas xlviij. divide.

A tonic nourishing diet was ordered, and also a glassful of wine two or three times a day. By persevering in this course for a month, the patient was quite relieved from her distressing malady.

The treatment was, however, continued for another month; and at the date of the report there had been no return of the complaint for upwards of a year.

Case 2. A boy, ten years of age, had long been affected with nocturnal incontinence of urine. During the day he had very frequent calls to urine, the bladder being unable to retain only a very small quantity at a time. He was ordered an infusion of quassia and half a grain of extract of nux vomica in

four pills during the course of the day. After three weeks' employment of this regimen, the boy could very sensibly retain his urine a great deal better, the calls being much less frequent. A blister was applied upon the sacrum, and a cold aromatic bath was to be employed twice a week. In the course of a fortnight, the nocturnal incontinence had quite ceased, and the patient continued well for six months.

Med. Chir. Review, April 1840, *p.* 542.

30.—SOLUTION OF URINARY CALCULI.

Dr. Charles Petit has lately made numerous experiments on the solvent powers of the waters of Vichy over urinary calculi. The result of these researches is, that calculi of uric acid, and of the ammoniaco-magnesian phosphate, when placed in this mineral water, lose, the first 53 per cent. and the last 60 per cent. of their weight. The loss is in the inverse ratio of their hardness and their cohesion. A very important result, however, is, that the calculi of the ammoniaco-magnesian phosphate suffer from this mineral water a true disintegration of particles, and become more friable. M. Berard has repeated these experiments, and arrived at the same conclusions. Numerous experiments were also performed on patients afflicted with various calculous complaints, the result of which was highly satisfactory. Those afflicted simply with gravelly complaints were, by the use of the mineral water of Vichy, relieved of all their uneasy feelings, and the formation of calculi was prevented. In those, again, who presented all the usual symptoms of urinary calculi, but the presence of which were not ascertained by sounding, the waters of Vichy caused the expulsion of gravelly detritus, speedily followed by the disappearance of the symptoms of stone. In those in whom a urinary calculus of considerable dimensions was ascertained to exist by sounding with a catheter, the use of the mineral water appeared to cause a diminution of its volume; a fact, in one case, ascertained by examination after death. It may be stated that the waters of Vichy consist of a pretty strong solution of carbonate of soda in a water highly charged with carbonic acid.

Archives Gen. de Med., and Edinburgh Med. and Surg. Journal, April 1840, *p.* 527.

31.—ON THE USE OF NITRATE OF SILVER IN SOME AFFECTIONS OF THE MUCOUS MEMBRANES.

By Alfred Hudson, M.D., Physician to the Navan Fever Hospital.

Undoubtedly some of the most troublesome cases with which the medical man has to contend, are old stomach complaints, and therefore any remedy which is likely to be of advantage to us in these cases, will be thankfully received by the profession. Such a remedy in many of these obstinate cases, the nitrate of silver will be found to be; and especially when it is given with sound pathological discrimination. We can safely say, that, according to our own experience, it will not often disappoint the practitioner.

Dr. Osborne assigns it an useful adjuvant action, as an astringent in gastralgia, with sour vomiting. Mr. Langston Parker classes it with morphia and bismuth as a *sedative* in ulceration of the stomach. Dr. Bigger gives us the testimony of Dr. Steinitz, to its efficacy in nervous debility of the stomach; and of Dr. Schneider, in dyspeptic palpitation; and a case of its successful exhibition, in this latter affection, is given by Dr. Copland, in his article "Indigestion;" and recently M. Boudin has published his observations on its effects in gastro-enterite, when given by the mouth and by enema.

Dr. Hudson relates the two following cases as good examples of the efficacy of this remedy, and of the kind of case in which it will prove valuable.

Michael Monaghan, aged 15, admitted February 3, 1839.—Has suffered for six months acute pain, with tenderness on pressure in the epigastric region; great distention of stomach after eating; thirst, costiveness, and vomiting of sour fluid. Pain usually commences about an hour after dinner, and continues through most of the night, preventing sleep; it is generally accompanied by vomiting of sour fluid, without food. He has been under medical treatment, but, as he says, without benefit.

His sunken and anxious face presents a picture of extreme suffering.

℞ Nitrat. Argenti gr. ½.; Opii. gr. ¼; Pulv. Rhei; Ext. Humuli, aa. gr. i.; Ft. Pil. ter die sumenda.
Bread and milk for diet.

His farther history is, that during his stay in hospital he had but one return of the vomiting. The pain and tenderness subsided in the course of a week. The pills were discontinued on the tenth day, and on the twenty-eighth he was discharged free from complaint.

Mary Dunne, aged 45, admitted October 18. Has had frequent attacks of pain in the stomach and vomiting, for the last fifteen years. She formerly enjoyed remissions of the complaint, but for ten months past she has had three or four attacks every day. Pain usually comes on in about an hour after taking food. She then throws up a large portion of the food, mixed with sour fluid: occasionally she vomits a quantity of fluid resembling the washings of flesh; the bowels are costive.

She was ordered a milk diet and the pills, as in the last case.

As might be expected, it was some time before any decided benefit was experienced. She took the pills for a week without the interruption of any of her daily attacks. She then seemed to improve for some days, but afterwards had a return of the vomiting of sanious fluid, and at the end of a week another.

Nov. 11th. Her attacks were become much less frequent, and her appetite improved. I ordered her a mutton chop daily.

From this time there was a steady and constant improvement, and she left the hospital free from complaint, and much improved in strength and flesh, on the 2nd of December.

Dr. Hudson then relates some interesting cases of uterine leucorrhœa in which it was of great use.

Some delicate females, to whom I gave this medicine for nervous debility (as it might be termed) of the stomach, and in whom the primary complaint was uterine leucorrhœa, observed to me, that while the painful feelings in the stomach were relieved, a corresponding amendment took place in the older affection.

Acting upon this *hint*, I made some trials, selecting as well as I was able cases of *uterine* leucorrhœa, so ably distinguished and described by Dr. Churchill.

Mrs. R———, aged 36, the mother of four children, was confined more than a month ago, and since she commenced moving about has been tormented by a viscid, transparent, colourless discharge, which goes off at night and returns during the day, in great quantity. She has dull pain in the loins, and gnawing at the pit of the stomach. She has had several abortions, and suffered much from the same complaint after each of them.

April 5th. She commenced taking the nitrate of silver in doses of a third of a grain, with powdered ginger and extract of hop, three times a day.

On the 15th of April she had taken ten grains of the medicine, and was quite well. She said she never got well so quickly in her life: she soon after became again pregnant.

August 6th. I was consulted by Mrs. M———, aged 38, who states that she has had leucorrhœa for ten years; that it is much worse after the menstrual periods. She has dragging pain in the loins; general weakness, especially in the back; sinking feel in the stomach, and a craving for food, without appetite; her bowels are sluggish; tongue pale and flabby.

She has consulted various medical men, and has spent several summers (by their direction) at the sea side, but without any material improvement. I prescribed the same medicine as in the preceding case.

August 20th. States that the discharge, which was very profuse at the time of commencing the pills, ceased entirely within one week, and has not since returned; her general health is much improved. I ascertained a few days ago that she still continues well.

The only other case of this kind I shall select from a number, which I have taken notes of, is one that I consider especially interesting, because the discharge (which was vicarious of suppressed menstruation) could not be attributed to debility, nor the good effects of the nitrate merely to its general action as a tonic.

M. M'Donnell, aged 19, presented herself as an extern patient at the hospital, October 1st. States that more than two months since menstruation was suddenly checked by her wetting

her feet, and has not since returned, but that at each period she has had pain in the loins, and a transparent, colourless, glutinous discharge, present in the day, and going off during the night. She feels great languor and debility, loss of appetite, weight about the heart and palpitation, hemicrania, and noise in the ear; the complexion is becoming pale; the tongue flabby, and indented by the teeth.

Ordered the pills, as in the preceding cases.

Oct. 12th. States that the leucorrhœal discharge which came on for the third time, about her former visit, was apparently much diminished by the medicine, continuing only three days instead of five, as formerly, and being succeeded by a scanty flow of menses.

Nov. 19th. Has not been able to attend for more than a month, and in consequence has not had medicine. The discharge has, within a few days, returned. Ordered

Nitrat. Argenti, gr. xii.; Aquæ, ℥iii.; Tinct. Amar., ℥i. M. Sum. cochleare parvum ter die.

Dec. 20th. States that in three days after her last visit the discharge ceased, and, after an interval of twenty-four hours, was followed by the menses in natural quantity, and continuing for three days. The general health is very much improved: weight at præcordia and palpitation nearly gone, &c.

Omittr. medicamenta.

It might be considered superfluous to allude to the employment of this medicine in diarrhœa and dysentery, as it is a frequent practice in the Dublin Hospitals. I first saw it administered by Dr. Osborne in Sir P. Dun's Hospital, in 1831, as an enema in dysentery. I was much struck with its effects, and have since repeatedly followed the practice. One of my friends in this country, (Dr. Toler,) who was a pupil of Dr. Osborne's, informs me that he has frequently employed this enema in cases of cholera with the best effects; and I have myself been a witness of his success in more than one case of the kind.

Dr. Hudson concludes his interesting paper by affirming that this remedy possesses

1st. A topical action upon the inflamed congested and ulcerated portions of the alimentary canal, similar to that which it exercises upon similar affections on the surface of the body.

2nd. A power of acting as a stimulant upon the capillary circulation of different parts of the body, as of the brain and uterus.

3rd. A tonic power of the very first order.

Dublin Journal of Med. Science, May 1840, *p.* 234—243.

32.—ACETATE OF LEAD IN BRONCHITIS.

By W. Henderson, M.D., Fellow of the Royal College of Physicians, and Lecturer on the Practice of Medicine, Edinburgh.

Several years ago, having had repeatedly occasion to regret the inefficacy of the medicines commonly used in bronchitis, when the object in view was the restraining of a too abundant secretion, by which the bronchial tubes were loaded, and the respiration greatly embarrassed, I was glad to avail myself of a notice contained in the *Medical Gazette* of 1833, and extracted from Rust's Magazine, in which the virtues of the acetate of lead were represented as specially adapted to the circumstance in question. The cases in which I have had the greatest reason to feel the want of a remedy which could restrain the secretion from the bronchial membrane, were the bronchitic disorders of children, occurring in connection with measles and with hooping cough; and it was in cases of this kind that I subsequently had the satisfaction of first witnessing the beneficial operation of the acetate of lead in inflammation of the bronchial mucous membrane.

After a careful investigation of the powers of this remedy, continued for several years, and based on an ample compass both of personal observation and the reported experience of several practitioners to whom I recommended the use of it, I feel warranted in stating my conviction that the acetate of lead is a remedy by far the most worthy of reliance in bronchitis attended with profuse secretion. The useful agency of this preparation is not confined to the bronchitis of measles and hooping cough, but is equally observable in the simple bronchitis, and in that which so often occurs as a complication of continued fever. In whatever class of cases I have prescribed it, its administration has been limited to that period of the bronchitis in which the evidences of abundant secretion were apparent; and those evidences have formed the only guides which I have found it requisite to follow in the first exhibition

of the remedy, and in regulating the bulk and frequency of the doses. The stage or duration of the disease does not require to be regarded in prescribing the acetate; and though it exerts a signal and most salutary influence on the secretion of chronic mucous catarrhs, it has always appeared to me that its chief value consists in the rapidity of its operation in such acute cases as are characterized by copious secretion, whether of the muco-purulent appearance or not, whereby the respiration is impeded, and suffocation is threatened.

In acute bronchitis, diverse effects have been observed to succeed the use of the lead. In some instances a very speedy and entire removal of the rattles has ensued, without the pulse having been lessened in frequency, or the respiratory acts materially altered from their previous condition. In such I have been accustomed to omit the lead, and to recur to the antimony, ipecacuan, and calomel, or to whatever remedy had been previously used. In a second class of cases, the rattles have merely undergone a considerable diminution, while the other symptoms have continued nearly altogether as before. In those I have found it of great advantage to alternate, with the exhibition of the acetate of lead, either the antimony, or calomel and ipecacuan. In a third class, no material change of any kind has followed the use of the lead for several days. The cases of this class, for the most part, consisted of hooping cough, with intense general bronchitis; and in the treatment of them, the acetate has been given in much larger quantity, and continued longer than in the others. I have repeatedly ascertained, in cases of this kind, that though the number of rattles, and the apparent amount of the secretion, seemed but little reduced from the state which they had presented on the lead being first administered, a marked change for the worse has followed the omission of it. In this class of cases, the doses of lead have been usually alternated with those of some common remedy; yet the latter have been frequently omitted, unless some indication of pneumonia existed, without apparent disadvantage. In a fourth class, composed mostly of cases in which the secretion appeared, from its extreme abundance, to be the principal cause of the more harassing symptoms—to wit, the hurried acts of respiration, dyspnœa, and consequent restlessness, &c.—the decrease in the number of the rattles, more especially the larger mucous rattles, which has commonly

soon followed the administration of the lead, has been very generally accompanied by a commensurate decrease in the other important symptoms. In not a few instances of feeble children, labouring under acute general bronchitis with copious secretion, have the effects of the acetate been observed, by myself and others, so promptly and decidedly manifested as to excite no little surprise, and to alter the prognosis speedily, from a very gloomy to a very cheerful aspect.

The dose in which this medicine may be given must vary with the exigencies of the case and the age of the patient; though the latter particular is of less importance. Indeed I have hitherto found occasion to give it in much larger quantity to children than to adults, owing to the much greater frequency and severity of acute bronchitis in the former. The quantity taken in twenty-four hours by an adult has not exceeded twelve grains, in doses of from one to three grains. The cases of acute bronchitis in the adult in which I have used the lead, have been mostly complications of continued fever. Along with the lead there were usually given a few grains of the compound powder of ipecacuan; sometimes with the addition of the powdered squill. The common doses to children have been, according to the severity of the case, a quarter, half, or whole grain, from eight to ten times a day. In one very severe, and at one time almost hopeless case, so much as four scruples were swallowed within ten days. The child was six years old, and the disease intense general bronchitis, supervening on hooping-cough. No such bad effects succeeded as are too commonly dreaded from the medicinal use of the acetate of lead, though the gums corresponding to the lower incisors exhibited the blue tint pointed out by Dr. Burton, on the fifteenth day from the commencement of the use of the lead, and it is probable that it existed previously to that date, though unobserved. Nor have I hitherto witnessed in any case the dreaded effects of the lead, not even to the extent of causing constipation.

In the chronic mucous and muco-purulent bronchitis, there is no remedy, I firmly believe, (and I have tried a great many) that possesses nearly the controlling power over the quantity of the secretion, which is displayed by the acetate of lead. I usually gave it in a pill containing one or two grains, along with some extract of hyoscyamus and a grain of squill, three or four times a-day.

I have thought it of consequence to let the experience which I have had of the properties of this remedy in bronchitis, be known; because it appears that they have nearly or entirely escaped the notice of the generality of practitioners. The only suggestions with which I am acquainted, of the utility of the acetate of lead in bronchial inflammations, besides that to which I have referred, are by Sauvages, in his Nosologia Methodica; by Dr. Reece, in the fifteenth volume of the Medical and Chirurgical Review (both of whom recommend it merely to relieve irritation in hooping-cough); and by Dr. Stokes, in his first volume on Diseases of the Chest, who conjectures that it might be of advantage in certain forms of chronic bronchitis.

Med. Gazette, May 8, 1840, *p.* 263.

If the acetate of lead is capable of thus checking the great secretion of mucus in bronchitis, of course we need not have recourse to expectorants to get rid of it; but we doubt whether the powers of this medicine are quite equal to what Dr. Henderson here relates. At any rate, we feel convinced that in many cases, expectoration is highly conducive to the recovery of the patients, and it would be highly injudicious to check it. "Inflammation of a mucous membrane," says that eminent physician, Dr. Williams, "involves a certain structural change, probably interstitial effusion, that can be relieved *only* by a free secretion from the inflamed membrane,—expectoration is a necessary process." And for this reason, we would strongly recommend to the profession the Lobelia Inflata, which, from many years' extensive use, we have found to surpass all other medicines, as an expectorant. In our opinion it is far superior to ipecacuan, squill, tartarized antimony, and all other expectorants now in common use. The way we prepare the tincture is by macerating for 14 days, three ounces of the lobelia inflata in three pints of proof spirit. We give from 15 minims to half a drachm of this tincture to an adult every few hours, and in the latter stages of the attack, when the system is sinking, and

the peculiar blue appearance of the skin is increasing, we combine small and gradually-increased doses of the carbonate of ammonia, which enables the patient more effectually to clear his bronchial surfaces. In this effect of ammonia, we agree with Dr. Williams, who says that he "is disposed to think that it is more than an ordinary stimulant, and acts in an especial manner upon the bronchial membrane."

The dose of this tincture of lobelia to an infant is about 10 drops gradually increased till vomiting is produced: we have frequently been astonished at the ease with which the mucus is expectorated after this medicine has been taken. It seems to have the soothing effects of tobacco, as well as its expectorant virtues, after the peculiar irritation which it invariably produces on the fauces has subsided. We have found it more especially useful in infants and young children who are so liable to bronchial affections. It seems to act like a charm when the early acute symptoms have in some measure subsided, and when the membrane is so loaded with mucus, or otherwise thickened, that de-carbonization of the blood is no longer properly performed; the blue, livid colour of the surface will often rapidly disappear, and a more healthy hue take its place. We have not perceived the same powerful effects produced so regularly and invariably by ordinary emetics, and this we have accounted for, by supposing that it must be both an expectorant and a sorbefacient, combining as it were, the effects of opium and ipecacuan.

33.—ON DIABETES MELLITUS.

By Dr. Maitland, St. George's Hospital.

The efforts of physicians in treating cases of diabetes mellitus appear to be still as much directed to the kidneys, as they were five years ago; yet, since that time, sufficient facts have been

accumulated to render it more than probable that these organs are nearly unconcerned in producing the mischief usually attributed to them.

By a reference to M'Gregor's "Essay on Diabetes," and my "Experimental Essay on the Physiology of the Blood," the following facts may be collected, which, I believe, have not been disputed by subsequent enquirers.

The stomach, in diabetes, has the property of forming sugar, from animal as well as from vegetable food.

Sugar is contained in the blood, urine, saliva, and stools of diabetic patients.

Such patients pass more urea than healthy ones.

No urea has been found in their blood, though albumen has been found in their urine.—(Bouillaud, Clinique Med. III. 289.)

In the healthy state, the blood contains (besides numerous other constituents) water, albumen, and urea: the kidney is charged with the office of removing *part* of the water, *all* the urea, and *none* of the albumen. A most arduous commission, perhaps requiring a greater supply of vital energy for its performance than is bestowed on any other secreting organ: for the kidney furnishes the largest of the secretions; it preserves the whole of the fluid passed through its ducts from any admixture of albumen, and it drains off the urea from the blood with such accuracy that it has not yet been detected in that fluid in health. We must not forget, in addition, that urea is found (by chemical tests) in *no part* of the healthy system *but* in the urine; and that albumen exists in *every* part of it, solid or fluid, *excepting* the urine; which fluid is strictly excrementitious, and therefore not required to contain an element so universally applicable to nutrition as albumen appears to be.—(Experimental Essay, p. 84.)

But when the granular degeneration is established, the kidney, like a sentinel negligent or physically incompetent, suffers to pass some of the albumen that should have been rejected, and leaves in the blood some of that urea that should have been carefully extracted; but no new matter is elaborated from the blood, and no function performed analogous to what has been attributed to the diabetic kidney. Then we find, during the prevalence of renal dropsy,

In the Blood.	*In the Urine.*
Defect of albumen.	Excess of albumen.
Excess of urea.	Defect of urea.
„ water.	„ water.

But in diabetes mellitus,

In the Blood.	*In the Urine.*
Excess of sugar.	Excess of sugar.
Excess of water.	Excess of water.
Urea unknown.	Excess of urea.

I think these facts point distinctly to the conclusion, that in the case of renal dropsy, the kidney *deranges* the constitution of the blood, by imperfect performance of its function; while in diabetes, the secretion is *deranged* by the organ being compelled to remove from the blood, elements, exceeding in quantity and number those which fall under its change in health. No wonder that Andral finds hypertrophy in the diabetic kidney, any more than that the same alteration is found in the obstructed heart.

May not diabetes mellitus be considered as a complication of two distinct lesions in the system—one, a saccharine diathesis, analogous to the excess of nitrogen in the uric acid diathesis, produced by a tendency of the aliments to degenerate into sugar, after the manner of starch and hordein; and the other, an irritation in the stomach and kidneys, leading to excess of fluid swallowed and excreted?

Three cases of diabetes insipidus examined by Macgregor and myself, gave 310, 336, and 400 gr. of urea *per diem*, respectively, the usual amount of healthy urea being 360 gr. daily. These cases showed a total absence of sugar; therefore they establish the fact, that there may be abundant flow of urine (in one case, 26lbs. daily,) simply diluted.

May not the sugar be a source of irritation; first, to the stomach, causing thirst, and secondly, to the kidneys, causing diuresis? In support of the last opinion, may be mentioned the facts, that sugar is an irritant applied externally; that it causes thirst when taken in excess; and that in the only case of diabetic blood which I have analyzed, the water was in excess, in the proportion of 815 to 783.

The degeneration of aliments into sugar cannot be ascribed to a deficiency of the nervous influence presiding over the

stomach, but to its morbid direction; for sugar is formed by the diabetic stomach from animal materials, which can be made to yield it under no other circumstances.

Lastly, are the means usually employed to correct the saccharine tendency, such as can be reasonably expected to benefit the supposed irritation of the stomach and kidneys?

Med. Gazette, May 15, 1840, *p.* 307.

34.—ON THE NITRO-MURIATIC MIXTURE.

By J. P. Mettauer, M.D., of Virginia.

Above twenty years ago this remedy was strongly recommended by Dr. Scott, in a paper read before the Medical and Chirurgical Society of London. Dr. James Johnson and Mr. Annesley have also added their testimony to its utility as a therapeutic agent: but it has not of late been much used in England, and especially not in the way recommended by Dr. Mettauer; and we therefore make the following extracts from the paper by that gentleman, given in the last number of the *American Journal of the Medical Sciences.*

The first case related is the following:

Mr.———, ætat. 29, of slender person, and strongly marked lymphatic developments, had been subject for fourteen years to asthmatic attacks from the slightest exposure: indeed the constant cough and free expectoration, with more emaciation than usually attends upon asthma in ordinary cases, had induced his friends, and early medical advisers, to regard the case as tubercular phthisis of a slowly wasting character. During the protracted ill health of this young man, anorexia, indigestion, constipation of the most obstinate kind, low spirits, &c. were constant attendants. The constipation was so obstinate, and constant as to resist the action of the most powerful and certain of the ordinary cathartic remedies in a very great degree; and its long continuance had so impaired, or vitiated the secretions, as to impart to some of them a peculiar fœtor, especially the exhalations from the pulmonary mucous surface, the urine, and

perspiration. The gentleman's mind suffered much also, and occasionally became so erratic in its operations, as to expose him to the sarcasm and merry jeerings, not to say cruel ridicule, of the thoughtless and unfeeling. In regard to his disease he seemed on some occasions irrational and almost a mono-maniac.

In this state of the case, after five weeks' trial with internal cathartics, it occurred to us to make an experiment with the nitro-muriatic mixture. We formed the mixture of equal parts of nitric and muriatic acids and water: of this, from six to twelve drops properly diluted with sugared water, were administered through a small canula of reed, to prevent its action upon the teeth, three times during the day, varying the doses, so as to give the largest at noon, and at night. At the same time from thirty to forty drops, diluted in two or three times as much simple water, were applied with a sponge over the regions of the liver and epigastrium, and to the insides of the arms and thighs; having previously washed away from the skin, with soap and water, its unctuous secretion, to enable the acid mixture more readily to penetrate. In this manner the remedy was continued for three days, before any decided impression was formed upon the constitution by it. About the close of the third day, some improvement of appetite, and of the buccal secretions was manifested. But on the morning of the fourth, to the surprise and gratification of our patient, the bowels acted freely, and seemed as he expressed it "just to have waked up from their long sleep." On this day we visited the gentleman, and found him greatly relieved, in body, as well as in mind. For two or three days, the remedy, although partially discontinued, acted rather too freely upon the bowels: after this time, however, they became more tranquil, and gradually acquired a state of solubility, of the most comfortable nature. It was found necessary in consequence of the deficiency of the biliary secretion, as manifested by the appearance of the alvine discharges, to continue the use of the acid mixture, both internally and externally for some days, after it had unlocked the bowels. It was one of the remarkable effects of the remedy in this case, and very soon after the constitution had become only partially impressed by its action, to improve the appetite and to enliven the spirits. The gentleman was now cheerful and full of hope, and able to indulge in the use of almost any kind of food, of which he partook freely, and with a good relish and

keen appetite. His recovery from this time was progressive and rapid. No other remedy was ever used by this patient after commencing with the acid mixture: nor was it necessary to use that during convalescence, except when the bowels seemed to become less free, and the appetite to falter, or to decay. At the date of this communication, now more than ten years since the case was treated, the gentleman continues to enjoy excellent health, and as buoyant spirits as any person of our acquaintance, of a constitution naturally feeble and delicate.

The next case related is that of puerperal mania, which gradually increased till complete derangement resulted.

Without attempting a particular detail of the case in this stage, we will observe that we have never witnessed a more aggravated case of mental derangement.

Previous to our visit efforts to purge had been made, but they were rendered ineffectual by the lady's incorrigible unwillingness to use remedies. When we first saw this patient, seven weeks after the birth of her child, we found her as already intimated, perfectly deranged, with the bowels obstinately costive, which state of them had continued for more than ten days; the lochia dried up; the secretion of milk, and the secretions generally, greatly deficient in quantity; perfect insomnia, and very slight general fever. For many days in succession very little food or even drink had been taken by her, either from a want of appetite and thirst, or from the apprehension that if she ate or drank, medicine might be disguised in the food or drink.

In treating this case our first object was to obviate the continued costiveness, and we attempted to effect this end through the agency of active internal cathartic means. We found so great difficulty in the administration of these, from the resistance of the lady, that we only succeeded after ten days' trial, in introducing into the stomach one efficient cathartic dose; it being now manifestly impossible to introduce cathartics into the stomach, and it was equally impracticable to employ cathartic means by enema. In this state of the case we were compelled to draw upon our inventive resources; and while anxiously reflecting on the difficulties now so well calculated to embarrass and perplex us, the nitro-muriatic mixture presented itself to our mind as more likely to aid than any other means, now

available to us, to overcome the constipation of the bowels. The remedy was speedily prepared and extensively applied, by sponging every accessible region of the extended dermoid texture three and four times daily. In this case the mixture already advised for external use was employed for three days before it seemed to make any impression upon the internal organs. During the night of the third day, however, after commencing with the sponging, the bowels gave way, and a most profuse catharsis followed, attended with dark, tar-like evacuations, and exceedingly offensive. These evacuations were soon followed by others more natural in appearance; and now it was that the lady became more tranquil, and reposed in quiet and refreshing sleep the first time for many days and nights in succession. Her mind about this time, likewise, became more rational, especially after she had slept a few hours; and for the first time, for nearly four weeks, she inquired affectionately, and with parental tenderness, after her infant. The application of the acid mixture was in a measure suspended now; and, as the symptoms seemed to abate or to assume a healthy aspect, it was gradually laid aside. It was remarked that a single application of the remedy after the constitution was impressed by it, was sufficient to operate upon the bowels decidedly; and, that by varying the quantity used at each time, corresponding effects were produced upon the bowels. Under this simple treatment the lady soon recovered; and, at the date of this communication, now nearly seven years since the case was treated, and with the exception of a slight attack of melancholy, she has enjoyed excellent health, and is the mother of three fine healthy children.

Besides the cases here reported, we have in numerous others of similar character, employed the nitro-muriatic mixture, with effects equally as marked as a curative agent. In dyspepsia, hepaticula, and other forms of chronic derangement of the liver, uterine affections of a sub-inflammatory nature, some of the forms of external scrofula, and nearly every variety of pseudo-syphilis, we have used this remedy with the happiest effects. In chronic uterine affections, especially the different forms of imperfect menstruation, connected with disturbance of the digestive function, and distinguished by mental depression, constipation, and anorexia, we have found it exceedingly beneficial. We have also employed the mixture with great advantage

in certain forms of hepatic torpor and constipation, following catarrhal fever, with constitutions decidedly bilious.

We believe the acid mixture is especially adapted to the treatment of morbid states of the human body, based in chronic inflammation, or engorgements of the capillary and parenchymatous structures of an indolent nature, either as the primary pathological condition of these structures, or the consequence of inflammation. In this view it is assimilated in its remedial action to mercury, to which agent we believe it bears a very striking resemblance in many of its therapeutic powers, especially those from which a deobstruent operation may be supposed to result.

In diseases of decided inflammatory character, the acid mixture is entirely inapplicable; and, as far as our experience enables us to decide, becomes so by reason of its tendency to irritate the constitution through those qualities which directly exalt the action of the economy unduly, so as to superinduce a state of hypersthenia. We have never found any but injurious effects to follow its action in every form of acute disease in which we have employed the remedy, and for a number of years have confined its use exclusively to chronic affections with very slight febrile disturbance of the general system.

From the experiments of Dr. Scott, and others, as well as from our individual experiments with the nitro-muriatic mixture, and a solution of chlorine in water, we are disposed to refer the the action of the compound in every case to the presence of chlorine, and believe, with Dr. Scott, that a solution of this elementary substance in water will answer as well as the nitro-muriatic mixture as a remedial agent.

In every case the pulse should be carefully attended to before this remedy is employed; and by no means should this important index of the state of the general system be disregarded during its continuance, or a condition essentially inflammatory may supervene upon its use, to contra-indicate a farther continuance of the mixture. We have never employed the remedy in question with children, and incline to believe that it will not suit their delicate and irritable constitution, especially as an epidermic application.

American Journal of the Med. Sciences, Feb. 1840, *p.* 291—299.

SURGERY.

35.—SPIRITS OF TURPENTINE IN IRITIS.

Mr. Arnott strongly recommends the internal administration of the spirit of turpentine in iritis, after the more active inflammatory symptoms have been reduced by bleeding and tartar emetic. This remedy he has found to succeed in curing the disease when mercury and the strictest antiphlogistic regimen had failed. The spirit of turpentine was administered, as recommended by Mr. Hugh Carmichael, in emulsion, in the dose of a drachm three times a day; and the only objection to the employment of the remedy was the difficulty or even impossibility of some stomachs retaining it beyond a certain length of time. This, however, might be obviated by diminishing each dose, but increasing their frequency.

Med. Gazette, and Edinburgh Med. and Surg. Journal, Jan. 1840, *p.* 247.

We also add the opinion of John Foote, jun., Esq., as given in the *Medico-Chirurgical Review* for April.

Mr. Foote believes that turpentine acts, in these cases, by inducing irritation in the mucous membrane of the intestinal and urinary canals. He quotes and approves of Mr. Carmichael's formula for its administration.

℞. Olei terebinthinæ rectificati, ʒ j. vitellum unius ovi; tere simul, et adde gradatim emulsionis amygdalarum ʒ iv., syrupi corticis aurantii ʒ ij., spiritûs lavandulæ compositi ʒ iss., olei cinnamoni guttas tres vel quatuor. Misce; sumat cochlearia larga duo ter de die.

In a few cases it has been necessary to increase the quantity of turpentine to an ounce and a half or two ounces in the above mixture, the other ingredients being proportionally diminished,

so that a drachm and a half or two drachms of it may be taken each time; but, in general, when administered to the extent directed in this formula, it has very seldom indeed failed, though extensively tried, and in very urgent cases.

Mr. Foote relates five cases, all of which occurred at the Westminster Ophthalmic Hospital. They tell, more or less, in favour of the medicine. Perhaps the case we shall introduce is as strong that way as any.

Case.—William Chalfont, ætat. 18, admitted July 21, 1829, with syphilitic iritis of the eye. He reports himself to have had sores on the penis some time since. He has now a copper-coloured eruption (the lichen syphilitica) very plentifully on the back and arms, accompanied with nocturnal pains in his shin bones. He has not had a sore throat, nor has he taken mercury. His eye has been inflamed for three days, and he suffers severe circum-orbital pain, especially at the lower part: vision is also considerably impaired. The iris is much changed in colour, and is immoveable: pupil regular: conjunctiva inflamed: and the vessels of the sclerotic are of a pink colour, and very numerous round the margin of the cornea, forming a beautiful zone, with a white inner circle immediately surrounding the cornea. *Med. Chir. Review, April* 1840, *p.* 487.

This case was treated with the usual dose of a drachm three times a day, with success. But we must agree with the editors of the *Medico-Chirurgical Review* that calomel and opium are our best remedies, and it is only where this treatment fails, that we are warranted in trying the turpentine.

36.—SECTION OF THE HAM-STRING TENDONS FOR THE CURE OF CONTRACTED KNEE-JOINT.

By Benj. Phillips, Esq., F.R.S., &c. &c.

A young woman, 29 years of age, had suffered for several years from rheumatism, which affected principally the knee-joints and hands. During this period both legs became more and more flexed on the thighs, and extension at length became impracticable. A variety of means were used for the purpose of procuring extension, but without any amendment.

The success of operations for the cure of club-foot by cutting the *tendo Achillis*, and also that of M. Lutens of Antwerp, who cured an obstinate flexion of the knee by dividing the ham-strings, induced Mr. Phillips to recommend section of the ham-string tendons in this case.

The patient lay on her face, and the limb was extended as far as possible, so as to produce a marked cord-like tension of of the ham-string tendons. A straight blunt-pointed knife was introduced with its flat surface to the tendon of the biceps, and between it and the bone. Its cutting edge was then directed upon the tendon, and by a gentle sawing motion cut it through without injuring the integuments. The cut surfaces retracted to the extent of about one inch. A similar course was taken with the semitendinosus. No blood was lost; and the edges of the small wound were brought together by means of plaster. On the third day, when extension was about to be made, it was found that the semi-membranosus muscle would not yield. It was accordingly cut through in the same cautious manner, the incisions being repeated till resistance was no longer offered. Its section allowed the extension to be increased by an additional inch.

A modification of Amesbury's apparatus was used for procuring the extension, and the extension screw was given one turn daily. Considerable pain at the patella was complained of after a few days, but by dividing the knee-cap of the instrument into two portions, and placing one above and another below the patella, the pain and discomfort ceased, and allowed the extension to proceed. The cure went on satisfactorily from this date, and when the apparatus was removed, which was done when the extension was complete, it was found that there was scarcely any tendency to contraction, and that the muscles were capable of extending and flexing the leg at will, though at first very slowly. *Med. Gazette, and Edinburgh Med. and Surg. Journal, Jan.* 1840, *p.* 249.

37.—HINTS ON THE TREATMENT OF WOUNDS AFTER OPERATIONS. By M. Phillips, of Liege.

The following brief passages are extracted from a letter which M. Phillips of Liege has recently addressed to M. Baudens, the distinguished chief surgeon of the French army in Africa.

After an amputation in a joint, the flaps should be brought and kept together by a few stitches, in order to promote union by the first intention; but as adhesion rarely, or perhaps never, takes place between the surface of a cartilage and the contiguous flesh, we should not only remove as much of it (the cartilage) before closing the wound, but also place a small portion of lint upon it, so as to encourage suppuration at this point, while the rest is retained in exact contact. The annals of surgery afford scarcely one instance of complete and perfect union, without suppuration, of a wound after a disarticulating amputation.

The disarticulation of the femur performed by the late M. Delpech, where the wound healed almost immediately, is perhaps the most fortunate case on record. The patient had suffered from disease of the femur for nearly 19 years, and he was falling into a state of marasmus. The crural artery being first tied, the chief flap was formed from the muscles on the inside of the limb; the head of the bone was then easily disarticulated, and the operation quickly finished. The two flaps were kept together by numerous stitches, which traversed the integuments only.

On the sixth day, there was a serous oozing from the wound, and on the ninth, a very slight suppuration. On the 28th, the cicatrization was complete; but about the end of the second month, a white substance presented itself; this was the cartilage of the joint. It was immediately removed, and the wound speedily healed.

Such an occurrence, as that of the cartilage making its way to the surface with no local or general disturbance, is excessively rare, and should not influence our practice much. We are therefore of opinion, on the whole, that whenever an amputation is performed at a joint, an issue or opening should always be left opposite to the cartilage, while the rest of the wound is retained together by sutures.

Even after ordinary amputation, where a bone has been sawn across, some surgeons have recommended that the same practice be pursued; but, without positively admitting the propriety of so general a rule, it is worthy of remark that, when the two ends of a bone are sawn off in cases of ununited fractures, not only is there a better chance of a union taking place, but this union is always much firmer and more solid, when suppuration has been established at the point of junction, than when immediate adhesion of the wound has occurred. Such was the

opinion of M. Delpech; a high authority certainly on all subjects of practical surgery.

Numerous statistical reports of the mortality after amputations of the larger limbs have been published of late years; but, from the imperfection of their details, such as the mode of dressing after the operation, the use or not of sutures, &c. &c. it would be unsafe to draw any positive inferences. The success of M. Percy, after the battle of Neubourg, deserves however to be alluded to, in consequence of certain circumstances. There was such a want of many of the most necessary articles, as lint, ointment, and bandages, in the French camp, that all the patients were dressed indiscriminately with merely cold water. It is probably to this very circumstance that the great success of the surgeons, in the results of their operations, was attributable on that occasion. For some years past, the same practice has been adopted by Mr. Liston at the London University hospital, and M. Phillips has of late universally followed it with very marked benefit, after almost all his operations. In all severe injuries of, as well as after operations on the eye, M. P. always subjects the part to the action of the cold water for several days. Also after the expiration of tumors, when the lips of the wound have been brought and kept together by several stitches, compresses wetted frequently with cold water are laid invariably upon the part. M. Phillip mentions that in such cases he generally unties the ligature at the lower angle of the wound on the day after the operation, for the purpose of giving exit to any bloody or other kind of discharge, and after removing this, he again secures it. On the third or fourth day he removes one ligature, and another on each day successively; continuing the use of the cold application all the time. M. P. trusts to *torsion* of the arteries to arrest the hæmorrhage, after many such operations. There is very little doubt that this simple expedient, if really sufficient as a hæmostatic means, must contribute very materially to the speedy union of wounds, as each ligature on a blood-vessel must necessarily give rise to a point of suppuration and to a minute sinus or fistula extending from the tied vessel to the surface of the wound.—

Bulletin Med. Belge, and Med. Chir. Review, Jan. 1840, *p.* 215.

We here insert a few words on irrigation, from the interesting Lectures on Surgery, by Mr. Phillips, surgeon to the Mary-

lebone Infirmary, which are now in course of publication in the *Medical Gazette.*

In most cases cold water is a good application, but if energetic local depression of vital action be required, irrigation will be found more effective. This irrigation may be accomplished conveniently by suspending a bottle of cold water in a proper position; placing in it a few threads of lamp cotton, one extremity of which should reach to the bottom of the bottle, the other hang out at its mouth; in this way you get a species of syphon, and a constant dropping upon the lint or linen covering the part. The part should, of course, be kept at rest.

Med. Gazette, Jan. 31, 1840, *p.* 689.

38.—ON THE ADVANTAGES OF DELAY (EXPECTATION) IN THE TREATMENT OF COMMINUTED FRACTURES.

By this term we wish to express a prudent and well-considered delay for several days after the receipt of a severe accident, and during which time a skilful management of all the symptoms, constitutional as well as local, is perseveringly pursued—so that on the one hand a fair chance is given to nature to repair the damage, and on the other hand, that the health of the patient is not unwisely risked too far before any mutilating operation is resorted to.

The judicious employment of local and general bleeding, of refrigerant drinks, of low diet, &c. in robust and plethoric constitutions, and of opiates and other anodynes, along with these means, in such as are feeble, lymphatic, and nervous, will often serve to prevent, or at least to mitigate, the severe symptoms which follow as a matter of course, every serious injury or wound. At the same time, the free incision *(debridement)* of such parts as may be tense and confined, the extraction of splinters which are always a cause of much pain and irritation, the resection of any protruded bones, the adjustment of opposite surfaces by means of stitches or bandages, the continued affusion or irrigation of cold water on the seat of the injury, the employment of emollient or resolving remedies according to existing indications, the use of the starched bandage *(bandage amidonne)* as soon as the first or inflammatory

accidents have passed away, and the administration of internal or external revulsives when any complication supervenes—these means, if judiciously practised, will in very many cases enable the surgeon to conduct his patient through numerous dangers and difficulties, and restore him to health without having undergone any loss or mutilation. The salutary effects of one or two large blood-lettings, in cases of severe injuries of the limbs, are well known to most practical surgeons; many an unpleasant accident might be avoided by the prompt and decided use of the lancet.

In reference to the application of leeches in such cases, it may be useful to state that they should be applied not to the immediate vicinity of the injury, but at some distance from and above its seat, and if possible near to the point where the smaller veins terminate in the larger trunks.

The irritation caused by leech-bites close to a contused or lacerated wound has often caused serious mischief.

We have already alluded to the advantages of removing any tension in the wounded part by means of one or two free incisions. Some surgeons have of late years questioned the propriety of this practice; but fortunately they have made few converts to their opinion, and the value of the precept is now very generally acknowledged. In many cases we should not wait until the inflammatory tension takes place before we have recourse to this practice, as it is much easier to prevent than to relieve the mischief.

The following are said to be the good effects of a continued irrigation of the injured part with a stream of cold water. "It arrests inflammation, checks the swelling of the tissues, soothes pain, lulls sympathetic irritations, and stifles any sanguineous reaction; the tissues bathed, as it were, in a permanent bath, become pale and colourless; their vessels no longer receive more blood than is necessary for the support of their organic life; suppuration is established slowly and scantily, and the reparative process is not disturbed by any violent excitement either in the part itself or in the system. The water should be of the ordinary temperature; and the limb should be placed in some apparatus which protects the bed from wet, and the parts which are not exposed to the current, should be enveloped in warm flannel. By attending to these precautions, the risk of

any pulmonary or abdominal irritation will be prevented, and the irrigation may be safely continued until all chance of inflammatory excitement has passed away."

In some cases, however, as when there is any tendency to pneumonia or enteritis present, or when the injured parts have been so severely bruised as almost to have lost their vitality, the use of cold affusions is inadmissible. Then we should have recourse to opiate cataplasms, which are especially useful when the process of suppuration is commencing.

With respect to bandages, they cannot be too simple and lightly applied at first. Whenever the risk of inflammatory action is over, and the use of the cold irrigation is therefore unnecessary, there is no remedy so useful in promoting the cicatrization of any wound and the solidification of the callus between the fractured ends of the bones, as the employment of the starched bandage or roller.* It has the great advantage of giving such equable support to the injured limb that the patient may move it about in bed, or even walk upon crutches without any danger; and thus much of the suffering, which is almost inevitable upon long confinement, is prevented. Moreover it is light, easily applied, and when once adherent is not liable to be displaced. It requires renewal only when, from the subsidence of the swelling of the limb, it has become rather loose around it, or when it is much soiled by the discharges. Openings must be cut in the bandage over the seat of any wound, so that this may be regularly dressed. We regard the employment of the continued irrigation of the injured part and of the subsequent application of the *starched bandage* as two of the most valuable acquisitions which the art of surgery has obtained in modern times, and as destined to introduce, in the treatment of comminuted and complicated fractures and such like injuries, a most beneficial revolution.

Bulletin Gen. de Therapeutique, and Med. Chir. Review, Jan. 1840, *p.* 217.

* This, the *bandage amidonne*, which has for the last few years been so highly recommended by MM. Seutin, Velpeau, and other continental surgeons, as constituting by far the best immoveable case for fractured limbs—is merely a common roller soaked in starch mucilage before it is applied. When it becomes dry, it forms a firm case round the limb, so that the patient may move it about, or walk on crutches without any risk of displacing the bones. An abstract of a paper by M. Veleau, on the use of this and other kinds of agglutinative bandages, in the treatment of fractured limbs, will be found in the Medico-Chirurgical Review, for July 1838.

39.—TREATMENT OF SCROFULA.

By B. Phillips, Esq., F.R.S., &c. &c.

Next to iodine, Mr. Phillips considers the muriate of baryta one of the most valuable remedies we possess; and one which has hitherto been but little used in this country.

He says:

It usually increases the appetite to about as great an extent as we see in children who are taking moderate doses of iodine; it increases all the secretions, and sometimes, like some of the forms of iodine, produces diarrhœa. In twelve cases where it was exhibited in the dose of, at first, one-third, and afterwards half a grain, three times a day, no unpleasant symptom was developed. Eight were materially benefited by its employment. The general health improved sensibly, and the enlargement of the glands was very considerably lessened. In the other four cases no sensible influence was exerted over the disease.

Iodide of iron is the preparation on which Mr. Phillips places the most reliance; respecting which he says:

Iodine, in its various forms, I have used extensively; and I have had very ample opportunities of estimating the relative merits of the different preparations of this substance. I have administered it in the form of tincture mixed with water, and also associated with the iodide of potassium. I have exhibited the iodides of iron, lead, sulphur, and arsenic. I have employed it externally, in the form of ointment, lotion, tincture, and bath, and as a broad or wholesale result, I may state shortly, that at present I rarely use internally any other form than the iodide of iron, and that the dose does not exceed, in any case, three grains, three times daily.

I have a register of 232 cases in which I have exhibited the iodide of iron. The minimum dose has been a grain twice a day, the maximum three grains three times a day. Of these cases, only three times was it necessary to intermit the use of the medicine for a few days: in one of these it excited ptyalism; it was laid aside for a fortnight, again resumed, and again produced ptyalism. Since that period, and within the last twelve months, the same patient, on her return from Margate, has been taking the medicine with the most decided good effects,

and without ptyalism. In the other case diarrhœa supervened; the medicine was withheld for ten days, was then resumed, continued for several weeks, and without any derangement of the bowels. About once a week an aperient or purgative is given, which decidedly assists the treatment, but no other suspension of the medicine occurs. Where scrofulous ulcerations occur, whether as a consequence of abscess or from other cause, I am accustomed to employ, with the very best effect, a lotion containing three or four grains of this preparation to the ounce of distilled water.

In the employment of iodine or the iodide externally, one fact cannot escape a superficial observer, and that is, the rapid change which follows the application. For a few days this diminution is very striking, but it is not long continued, and after a fortnight or three weeks the tumor appears stationary. Then is the time for resorting to a new form, which must be employed for a similar period, and must then give place to a third. But although these external applications will occasion a marked diminution of such tumors, they hardly ever completely disperse them; and when applied alone, without a concurrent internal administration of some preparation of the medicine, their effects are much less decided. When such tumors are extremely indolent, the ointment may be rubbed upon the part without fear of injury; but if they be the seat of irritation, it is very likely to be increased by friction. In consequence of this circumstance, I usually recommend it to be applied to the part, spread on lint. It is thus kept in contact with the surface for a much longer time, the irritation consequent upon rubbing is avoided, and the good effects of the medicine are more decidedly marked than by any other mode of application.

Now, in my own experience, so far from emaciation of the whole or a part of the body being essential to the therapeutical action of this medicine, when prudently administered, one of the earliest symptoms observed is a remarkable increase of appetite, and a corresponding increase in the bulk of the body. I have watched its effects with great care, and I have not known a single case in which either the whole or even a part of the natural structures of the body have undergone any such change.

Mr. Phillips' Lectures on Surgery.—*Medical Gazette, Jan.* 10, 1840, *p.* 580.

40.—EMPLOYMENT OF THE RECTAL TUBE IN STRANGULATED HERNIA.

Dr. J. O'Beirne, of Dublin, recommends the introduction of a tube to a considerable distance up the rectum in cases of strangulated hernia, for the purpose of giving vent to the flatus contained in the intestine, as this process may occasionally prevent the necessity of an operation. He states that "no medical man can henceforth be considered justified in proceeding to an operation for strangulated intestinal hernia, without having previously given a full and fair trial to the mode of treatment in question." Mr. W. H. Maunder, of Cullompton, Devonshire, relates an interesting case in a letter to Dr. Beirne, in which the introduction of the tube of the stomach-pump, to the distance of twenty-six inches, so relieved his patient of flatus, that the strangulated intestine became relieved, and an operation was prevented. Mr. Maunder says:

On Thursday, the 12th of December, 1839, I was requested to visit John Howe, aged 46 years, a weaver, and a pauper belonging to this parish. I was soon at his bedside, and found him complaining of constipation of the bowels, which had existed for three days previously; constant vomiting; a sense of dragging at the epigastrium, and great pain on pressure of the abdomen; tongue white and coated; pulse 100, but weak. On prosecuting my inquiries, I ascertained that he had been the subject of hernia on the left side for three years, but had never worn a truss; and on the Tuesday evening previous, while at work at his loom, weaving bags, (rather a laborious occupation,) he felt the intestine protrude to a much greater extent, and with more pain than it ever had before. Hitherto, he had always reduced it himself by a little manipulation and the recumbent position. There was a portion of intestine, of the size of an orange in the scrotum, which I could not reduce by repeated and unremitting efforts at the taxis. I bled him to sixty ounces, but with no better success. On the following evening I went to his house with the intention of

operating on him, provided the intestine remained unreduced, but suggested to my friend and colleague, Mr. Smith, the propriety of first introducing the tube as recommended by you. I must frankly and candidly admit, I did not consider it would be of any use; however, he concurred with me in opinion, and I proceeded at once to pass the tube of the stomach pump. There was a little difficulty, which was removed by injecting rapidly a little gruel. The tube was introduced twenty-six inches, and after the expiration of about ten minutes, air escaped in small quantities from its mouth; the scrotal tumour gradually diminished, and the poor fellow was soon released from suffering; the sickness ceased, pain was diminished, and the dragging sensation completely relieved. I gave him shortly afterwards, two drops of croton oil, mixed up with sugar, and divided into three powders (one every three hours, and followed up by a little saline mixture,) whereby the bowels were most powerfully acted upon; he is now quite recovered, having resumed his usual occupation more than a week since.

Lancet, Feb. 1, 1840, *p.* 693.

41.—PURULENT OPTHALMIA, EVEN BEFORE BIRTH.

By John Walker, Esq., Manchester.

In the course of these excellent Lectures on the Eye, by Mr. Walker, a case of the above-named disease is related, which is very remarkable. Mr. Walker says:

You will, probably, agree with me in thinking that this disease may arise from a number of causes, one of which may be some such secretion as that alluded to, and another a peculiar congenital predisposition.

This extraordinary case I will state a little in detail, since, as far as I know, there is no similar one on record, although, probably, others must have occasionally occurred. The child, when first brought under my notice, was six months old, and the mother, a very intelligent person, informed me that at the time of birth, its eyes exhibited the same appearances as were now observable. The disease had run through its entire course previously to birth, for, according to her account, there was no

rriform discharge, inflammation, or intolerance of light, no-ced at any time subsequently. The cornea of one eye had mpletely sloughed, the eye-ball had sunk, and, of course, ot the slightest vision existed. More than one half of the rnea of the other eye was opaque; through the remaining nsparent portion a part of the pupil could be discerned, and e iris and cornea appeared almost in contact. The transpa-ncy gradually extended, and more of the pupil became acces-ble to light; hence, though vision was very imperfect when I st saw the child, yet it appeared to be gradually improving.

Now, after duly considering how perfectly the phenomena resented by the eyes of this child agree with those met with s results of purulent ophthalmia attacking infants after birth, think that no reasonable doubt can be entertained that they ere occasioned by purulent ophthalmia which occurred before irth.

This is not the only case that I have met with, affording vidence of active disease of the eyes having been present uring the uterine period of existence. Some few years ago I aw a child, then only two or three days old, the cornea of each f whose eyes was opaque throughout and unusually large and rominent, so that very little of the sclerotica was discernible. he opacity was of a blueish-white colour; there was scarcely ny irritation about either eye; nothing like inflammation. I nerely prescribed some palliative remedies, regarding the case s one of malformation, and thinking that this would probably e permanent. This child, however, when about two years of ge, was again brought to me on account of some slight inflam-natory condition of the eyes, and I was surprised to find that ney had assumed a perfectly healthy appearance, the cornea aving become quite transparent, and of the normal size.

Lancet, Feb. 8, 1840, *p.* 713.

42.—NEW AND SUCCESSFUL METHOD OF TREATING PROLAPSUS UTERI.

By Benj. Phillips, Esq., F.R.S., &c.

Mr. Benjamin Phillips has in one case of prolapsus uteri, reated by him at the St. Marylebone Infirmary, succeeded in ffecting a cure, or at least in affording complete relief, by

destroying a portion of the mucous lining of the vagina by means of nitric acid. The contraction consequent on the separation of the sloughs reduced the size of the vagina so much as effectually to retain the uterus *in situ*.

Med. Gazette, May 18, 1840, *and Edinburgh Med. and Surg. Journal, Jan.* 1840, *p.* 252.

43.—REMARKS ON THE NATURE AND TREATMENT OF CLUB-FOOT.

By W. Detmold, M.D., of New York.

There is a long but very interesting article on this disease in the *New York Journal of Medicine and Surgery;* and we here make rather copious extracts, in order that our English readers may compare the observations with those on the same subject by Dr. Little, and other talented surgeons of our own country. The extracts we have made are scattered through a space of sixty-four pages of the Journal, but will be found to be a tolerably accurate epitome of the opinions of our transatlantic friends.*

The anatomical examination of a club-foot shows that in every case the muscles are the parts originally affected, and that all the changes which the other parts involved in the deformity may have undergone, are secondary. We wish to be well understood;—we call the muscles the parts originally affected in every case of club-foot, (for so they are even if the deformity should, for instance, be developed in consequence of an ulcer on the foot, or of caries of a tarsal bone;) in such cases, these would be only an accidental cause of the affection of the muscles, but which in itself has nothing to do with the deformity. Besides the affection of the muscles is sufficient to explain satisfactorily all the symptoms of the disease.

The whole muscular system is so arranged, that on one part of the body, or of a limb, we find one set of muscles for one

* A most able and interesting review of Dr. Little's work is given in the London Medico-Chirurgical Review, for April 1840, which will amply compensate those readers who have not already seen it for the purchase of that number in particular.

articular motion, and on the opposite side we find another et for the opposite motion; we find on one side of the limb the exores, and on the other, the extensores; on one side, the ronatores, and on the other, the supinatores; the adductores, nd abductores; and so on. These separate antagonist sets re with few exceptions, if not of equal strength, at least of a roportional strength, so as to counteract each other, and by eeping an equilibrium between themselves, preserve free notion of the limb. If this equilibrium is disturbed, free mo- on ceases, and the limb is drawn to that side on which the nuscles are so strongly contracted that their antagonists are rawn out of action. If this occurs in the muscles of the neck, ne disease is called torticollis, or wry neck; if in the fore-arm nd head, the club-head; if in the leg and foot, the club-foot. Although, as we have just remarked, the antagonist sets are in eneral of a proportional strength for the sake of preserving the quilibrium; yet, as a general rule, the flexores are stronger han the extensores, the pronatores stronger than the supinatores, nd the adductores stronger than the abductores. In a few in- tances this respective difference is greater, and it is greatest in he muscles of the lower jaw and of the calf. The muscles which close the jaws being, for very obvious reasons, infinitely tronger than those which open the mouth,—and the muscles f the calf, which, when the body is raised on the toes, have o bear the weight of the whole body, must also, of course, be ndowed with great power; whereas their antagonists require omparatively very little. This is no exception to the above- nentioned general rule, that the flexores are, in general, tronger than the extensores, for although the muscles of the alf are commonly called the extensores of the foot, they ought, according to their situation on the back part of the imb, and according to the whole arrangement of the bones, to be called the flexores of the foot, and, in fact, some modern physiologists and anatomists, Rudolphi and Von Walther for example, have already adopted this nomenclature, and called the gastrocnemii and soleus muscles flexores.

This fact, viz. that the strongest set of muscles (in the leg the muscles of the calf,) will contract from a general cause of irregular muscular action, illustrates one cause, and by far the most frequent cause of club-foot. Congenital club-foot is in almost every instance produced in this way.

The club-foot from spasmodic contraction of the muscles, is more difficult to cure than any other.

The club-foot, after paralysis, is easier cured, but it often requires a long time, and particular attention, before the patient can walk well.

The third class, club-foot after habitual contraction, without spasm or paralysis, admits of the most favourable prognosis, the patients are easily cured, and almost immediately after the cure walk perfectly well.

At how early a period of uterine existence this deformity may originate, we have had no opportunity to ascertain by experience, but have every reason to suppose that, as soon as the muscular system is far enough developed to serve as the instrument for motion, that is, as soon as the muscles are able to contract at all, that they may then contract irregularly. Little, and others, have found and dissected fœtuses of three months old with club-feet; and we have seen children born with club-feet where the contraction of the muscles must have taken place before the bones had attained their osseous consistency, for the bones were plainly bent by the contraction so that they formed a bow, the muscles acting like a bow-string.

Dr. Little has proposed the name of talipes as a generic name for all these distortions of the feet, and we believe it is, and ought to be, generally adopted.

There are four distinctly different species of talipes to be considered, viz.:

I. The muscles of the calf and the adductores of the foot are contracted, the heel is drawn up, and the foot has made a rotatory motion inwards, analogous to pronation of the hand; the toes turn inwards, and the outer edge of the foot touches the ground, the patient walks more or less upon the outer ankle—*talipes varus.*

II. The muscles of the calf are contracted, together with the abductores of the foot, which has made a rotatory motion outwards, analogous to supination of the hand; the inner margin of the foot touches the ground, the patient walks more or less on the inner ankle—*talipes valgus.*

III. The muscles of the calf are alone contracted, the patient steps on the toes without bringing the heel to the ground—*talipes equinus.*

IV. The muscles in front of the leg are contracted, the patient steps on the heel without being able to bring the fore-part of the foot to the ground.

Talipes varus, as we have mentioned before, and as from the explanation of the disease, and the mode in which it originates, might *a priori* be expected, is that species of talipes which is most frequently met with. Of the 167 patients which came under our observation, 93 had, as we have stated, both feet affected, and 74 only one foot: this gives an aggregate number of 260 feet; of these 230 were vari.

In this form, all those muscles are contracted which are naturally of a superior strength to their antagonists, viz.: the muscles of the calf, the muscles on the inner side of the leg, and those of the inner side and sole of the foot. Consequently, the heel is drawn up, the foot is turned in, and the inner margin of the foot turned up and bent, so that the great toe is brought nearer the heel. All the bones of the foot are somewhat changed in their position towards each other, without however, their respective articular surfaces ceasing to be in contact; there is no complete luxation; the ligaments which connect the bones of the foot adapt themselves to their abnormal position, and become contracted and shortened on the inner side of the foot, and stretched on the outside.

The foot touches the ground with its outer and upper part, where from the pressure of walking, a thick callus is formed; whereas the epidermis of the heel remains thin and delicate.

Treatment.—When the pathology of a disease is established, and we believe we have done that satisfactorily in the disease in question, it is easy to find the therapeutical indications, which are in club-foot, to re-establish the disturbed equilibrium of the muscles, to relieve the contraction of one set, and to give the other a chance to regain its power. Our object now is to consider the best means of obtaining this end.

The only remedy to be relied upon, in the cure of club-foot, is extension of the contracted muscles, gradually increased and continued until one set of muscles lose the inclination to spasmodic contraction, and their antagonists regain their activity. In cases where the contraction is so strong, or has existed such length of time, that a moderate extension is insufficient to overcome it, we have a certain and safe remedy in the knife; we divide either the contracted muscle or its tendon, and as

soon as reunion has taken place, or rather as soon as it has begun, we commence extension, which then meets with little resistance. We say, a moderate degree of extension is alone indicated, for if it exceed those limits which are dictated by prudence, and by the consideration that we are treating a living subject, and a contractile muscle that will yield to a certain point,—but on this point being exceeded, will re-act against the extension,—and that if this is persisted in, the whole system will sympathise with the part, and convulsions and other serious nervous symptoms will be the consequence.

With a little practice and experience, we are generally able to judge beforehand whether extension alone will be sufficient, or whether the knife had better be resorted to, at once, without losing time.

If the contraction yields to the extension made with the hand, if the heel can be drawn down, and the instep bent, in a word, if the foot can without great force be reduced to the natural shape, or nearly so, the operation can generally be avoided. The manipulation, however, must be made gradually and with care, for if sudden, the child will offer a resistance which might be mistaken for spasmodic contraction, whereas, by a gradual extension the foot might probably yield.

Generally in children less than a year old, the muscular contraction will yield to the mere extension with proper instruments, although, of course, the age alone decides nothing. We have operated upon children of three months of age, and we have cured without dividing a tendon, congenital club-feet in patients of four years of age.

All this shows that no positive rules can be laid down as to the necessity of operating; much, after all, must be left to the judgment of the surgeon; yet he ought to bear in mind, that steady extension is a powerful remedy, which will supersede the knife in cases which, at first sight, may promise little hope.

We believe, that in the great majority of cases where we feel obliged to resort to the knife, the section of the tendo Achillis alone is sufficient. The gastrocnemii are the strongest muscles, and capable of the most powerful contraction; besides they are the chief cause of the deformity; if their contraction is overcome, the other muscles involved generally yield very readily. In young subjects, it is, to say the least, superfluous to divide more tendons. In older patients, it may occur that other

muscles, besides the gastrocnemii, are not only so strongly contracted, but from the duration of the contraction, actually so shortened, that their division may facilitate the cure. The muscles that, under such circumstances, may require the section of their tendons, are, besides, the gastrocnemii, the tibialis anticus and posticus, the flexor longus, and sometimes the extensor pollicis; and in pes equinus, the peronæi. In deformities of long standing the ligamentum plantare is sometimes so shortened that time may be gained by dividing it also. We have, in many cases, divided these muscles, and, for the sake of experiment, have occasionally, in patients where both feet were equally affected, divided the tendo Achillis alone in one foot, and in the other foot, besides the Achillis, those of other contracted muscles; but the result of our experience is, that the section of the tendo Achillis is the main thing, and that almost all cases are curable by dividing this alone, and even the gain of time, from dividing more of the contracted muscles, is not very great, if in fact, it be any at all. Yet, if in bad deformities of long standing, some of the above-mentioned muscles were very strongly contracted, and their tendons can be felt very tense and prominent under the skin, it may be advisable to divide them before commencing extension; although there would be nothing lost by dividing at first the tendo Achillis alone, and commencing extension, and if afterwards any other muscles were found to offer too great a resistance, their tendons might be divided in the course of the treatment.

The operation itself is very simple. After the patient is placed in the most suitable and convenient position, an assistant, or the surgeon himself, with his left hand extends the heel to make the tendon more tense, so that it shall not yield before the edge of the knife. The principles to be observed in performing the operation are, to cut, not by drawing the knife, but by *pressing it against the fibres*,—in this way there is no danger of wounding other tissues,—to divide the tendon where it is most prominent under the skin, to separate it completely, not leaving any of its fibres undivided which might afterwards be torn by the extension; to pass the knife as closely round the tendon as possible, so as to make the internal wound not larger than is necessary, and to make the wound in the integuments as small as possible.

A good deal has been said about the shape of the knife, whether it should be straight, concave, or convex. We formerly used a concave knife, but now use, in preference, a straight one; the shape of the knife is immaterial provided the blade be narrow. The one we are now in the habit of using, is in its broadest portion not quite one-twelfth of an inch. In dividing round tendons, and tendons or muscles which are so placed that it is easy to pass the knife underneath without fear of wounding other parts, it is advisable to use a straight or slightly concave knife, to introduce it under the tendon with the edge upward, and cut from within outward; whereas in cutting flat muscles, aponeuroses or ligaments, we prefer a convex knife, which we introduce under the skin, and divide the tendon by pressing the knife upon the contracted and tense fibres, cutting from without, inward. Some surgeons in dividing the tendo Achillis make two external wounds, that is to say, they suffer the point of the instrument to penetrate the skin on the opposite side of the tendon: others pretend to see a great advantage in making only a single external wound. We have operated both ways, and found no difference in them. When we used the concave knife, we generally made two wounds; but now with the straight knife, we make only one; but these wounds are so small that if a surgeon should think the operation easier and safer by bringing the point of the instrument out on the other side of the tendon, the second wound would be no objection against this method; on the contrary, we would certainly advise him to adopt it. In fact, provided the general principles already laid down are followed, the mere mechanical execution of the operation is so simple that every surgeon of moderate skill will be able to perform it.

While the instrument is passing through the fibres of the tendon, we always hear a peculiar grating sound, and when the division is completed, a distinct jerk, from the retraction of the severed extremities, is heard and felt. Sometimes, however, the surrounding cellular tissue is so tense, and the muscle so rigid in its contraction, that the extremities of the cut tendon cannot separate so suddenly, and consequently the jerk is not perceived. We should therefore make it a rule after withdrawing the knife, always to ascertain with the finger whether the tendon has been completely divided, and if we feel some fibres remaining tense under the skin, we should introduce the point

f the knife again through the same external wound, and divide ıese fibres. This accident may happen if the instrument passed too closely round the tendon, so that the point ıters between the fibres, those beneath the back of the knife f course remaining undivided. We have never met with any ntoward accident. Once, only, in dividing the tendo Achil-s in a little girl of nine years of age, we had a slight hemorr-age, and although the blood came out, at first, in a jet, it opped almost immediately, the child losing hardly half an unce. Scoutetten relates two cases of hemorrhage after the ivision of the tendo Achillis; in one case the little patient ost from eight to nine ounces of blood; he succeeded, in both ases, in stopping the bleeding by compression. Any accident nat may occur, has of course, to be treated according to the eneral rules of surgery.

We now arrive at a very important question, viz. whether to egin extension immediately after the division of the tendon so s to make the cut extremities at once separate as far as possi-le, or whether to allow the tendon time to unite again, and nen to commence stretching gradually the yet soft intermedi-te substance; and if the latter method be preferred, how long ill it be advisable to wait before the process of reunion shall e far enough advanced to exclude the fear of the divided xtremities remaining separated, or of causing inflammation?

Some of the French orthopedists have adopted and advocated he method of immediate extension; if our readers have had he patience thus far to follow our reasoning and views on the vhole subject of tenotomy, they will readily perceive that we nust be opposed to this proceeding; and we feel confident that he majority, nay, in fact, every prudent practitioner will agree vith us, especially after having impartially considered the ad-antages and disadvantages of either method.

The disadvantages and perils of immediate extension are lmost self-evident, so much so that even if a series of success-ul cases, where no dangerous symptoms followed that proce-lure were adduced in favour of the method, we should be nclined to consider them rather as so many lucky escapes, than as proofs of the safety of the method.

The dangers which we fear from this, so termed, improve-nent upon Stromeyer's method, and why we are opposed to it, are of a two-fold character; first, the tendon may not unite

again, and thus the patient may be maimed for life. This is no vain apprehension, for it has been proved by experiment on animals, that a tendon will unite again if the extremities separate two inches from each other; but that reunion seldom takes place if the distance is greater, and never if it amounts to four inches.

The other danger is, that inflammation with all its consequences, as suppuration and sloughing of the tendon, may be caused by forcibly stretching the fresh wound, a danger which will also be increased by the impediment to free circulation in the limb, arising from the compression of its blood-vessels by the fastening of the apparatus.

It certainly does not require much arguing to prove that these two results may follow immediate extension; and if they do, that they are so injurious in their consequences, that even if the yet doubtful advantages of the method, the saving of time and pain, could be positively proved, (which we by no means concede,) we doubt much whether prudence could sanction it.

If we find that the space between the separated extremities of the tendon is filled up with plastic lymph, which is ascertained by a slight unelastic swelling under the skin, without pain or redness, we may safely commence extension without fear of disturbing the reunion. This exudation of plastic lymph generally takes place within twenty-four hours after the operation; but in cases where the ankle-joint is very flexible, and where the extremities of the tendon have separated more widely than usual, it may be prudent to wait a day or two longer.

After having, by the division of the tendon, overcome the greatest obstacle to the reduction of the deformity, this must be effected mainly by mechanical means; for the operation itself produces hardly any immediate change in the appearance of the limb; of the value of external applications, frictions, and champooing, we have said a few words already; they are useful assistants in giving tone to the muscles, but for the alteration of the shape of the foot, the mechanical means can alone be relied upon. Various machines have been invented and used to accomplish this object; in fact almost every surgeon who has paid some attention to this branch of surgery, has contrived an instrument of his own which he thinks preferable to all others, because he is accustomed to use it. This only proves that the

onstruction of the machine is of little importance provided it lfils the indications of the case, which are,

1st, To bring down the heel.

2d, To bring down the inner margin of the foot; and

3d, To relieve the contraction of the inner margin of the foot.

These three indications must be gradually fulfilled with the ast possible external pressure, and with as little pain to the atient as possible.

The time which is requisite to reduce the deformity so that ie patient can wear a shoe and begin to walk, depends upon o many different circumstances, as the degree of the deformity, ie age and constitution of the patient, and many other things esides, that it is almost impossible to fix it with any degree precision. However, we may consider from one to three onths as a fair average, although we have treated feet that ave withstood our orthopedic efforts much longer, some times ght months and more; and, even after the deformity is re-uced, it generally requires a great deal of care and attention, nd a long continued use of Scarpa's shoe, or a similar con-ivance, especially in old cases of varus, before the patient is able o enjoy the full benefit of the operation. In fact, many pati-nts with varus, after they have reached a certain age, require me kind of mechanical support for years, and, if they are ft without it, the foot turns in again.

The eminent success which has followed tenotomy in the cure f club-foot, has of course induced surgeons to carry out the same rinciples and the same operation in the treatment of analogous ntractions and distortions; and we may almost say, that there hardly a joint in the human body for which, if contracted, enotomy or myotomy has not been performed within the last w years; no doubt many muscles and tendons have been un-ecessarily divided and without success, and perhaps many more ill be; yet it is certain that a large number of contractions ave been relieved which, hitherto, had been considered in-urable.

Squinting, which arises from a spasmodic action of the mus-les of the eye, could no doubt be cured by a division of those uscles, if the slight inconvenience of the disease could justify uch an operation; yet if squinting existed to such a degree s to interfere materially with the functions of the organ, if the ye were drawn so much to one side that the pupil was covered,

we think the attempt might be made. Stromeyer makes a similar suggestion.

New York Journal of Med. and Surg., Jan. 1840, *p.* 1—64.

Detmold and Stromeyer's suggestion about the cure of squinting has already been followed up with admirable success by Professor Dieffenbach, as will be seen by referring to the following article. To shew what severe injury may be inflicted upon the tendo Achillis, without considerably impairing its utility, we would here state that some years ago we had a case in which a woman, by some violent exertion either in walking or leaping, tore off a considerable portion of the os calcis, by means of the action of the tendon: both bone and tendon were forcibly drawn through the integuments, about an inch or an inch and a half above the heel; and as we found it impossible even to replace the bone, much less to keep it there, we separated it from the tendon, and replaced the latter as well as we could. The tendon afterwards sloughed away to a considerable extent; but, notwithstanding, the woman has completely regained the use of the limb, and walks nearly as well as with the sound leg.

44.—ON THE CURE OF CONGENITAL SQUINTING BY DIVISION OF THE INTERNAL STRAIGHT MUSCLE OF THE EYE.

By Professor Dieffenbach, of Berlin.

Case 1.—The subject of this operation was a child seven years old, whose eye was drawn far into the inner angle of the eyelids, so as to produce considerable disfigurement. The operation was performed in the following manner: The head of the child was held against the chest of one assistant, while another with two hooks kept the eyelids widely apart. The operator then passed a third hook, which he gave to a third assistant to hold, through the conjunctiva, and to some depth in the subjacent cellular tissue at the internal canthus. He

xt fixed a fine double hook in the sclerotica at the inner angle, d taking it in his left hand drew the eye outwards. Then tting into the conjunctiva close to the ball where it is con- nued from it to the internal canthus, and penetrating more eply by separating the cellular tissue by the side of the scle- tica, he divided the internal rectus muscle close to its insertion th a fine pair of scissors. The eye was immediately drawn twards by the external rectus, as if it had received an electric ock; and in another instant became straight, so that there us no difference perceptible between its direction and that of e other eye.

The hemorrhage during the operation was but slight though fficient to impede it. The after-treatment consisted of cold tions; no inflammation ensued, and within eight days the ure was completed.

Case 2.—Carl Gerhard, æt. 10, affected with squint since his urth year. His parents wishing him to become a printer, ere anxious to have this defect removed as it interfered with mposing. The right eye was so completely drawn into the ner angle that on a first view, the point of junction of the is and sclerotica formed the centre of the anterior surface of e eyeball. By an effort the eye could be drawn from the nthus and placed straight, but could not be turned at all twards. The operation was performed as in the last case, the njunctiva being cut through, and the sclerotica laid bare to e extent of four lines, in order to bring the muscle into view, hich was cut with a curved scissors as before. The squint was ne; the eyeball when at rest stood nearly straight, or rather little turned outwards; and could be turned more readily by e patient's efforts in this direction than inwards. All the her movements of the eye were free. The bleeding was here uch less than in the former case and caused no interruption. he sudden turning of the eyeball outwards, observed in the rst case, did not take place here.

The boy felt quite well on the following day. He could eparate the eyelids without difficulty. The conjunctiva in the ner angle of the eye was red. The eye was nearly straight, nly turned a little more outwards than the other. In eight ays the cure was complete and the eye quite straight.

Medicinische Zeitung, Nov. 1839, *and British and Foreign Med. Review, April* 1840, *p.* 558.

The same kind of operation has been performed by P. Bennett Lucas, Esq., with success, as will be seen by the following case.

Case 1.—Mary Ann Daly, aged 6, was born with her eyes perfectly straight. After the measles she suffered much from repeated attacks of strumous ophthalmia, on being cured of which it was found that her right eye was permanently turned deeply into the inner canthus, with also a slight degree of obliquity upwards. The strabismus has existed for three years. When the unaffected eye is closed the turned-in one endeavours to right itself, and the child, by an effort, can direct it as far as the centre of the orbital axis, but it speedily returns to its abnormal condition. The child is powerfully strong, of very full habit, and of a strumous diathesis.

April 11, 1840. In the presence, and with the kind assistance of Mr. Fitzmaurice, Mr. Wardrop, jun., and Mr. Alexander, I proceeded to perform the operation for the division of the internal rectus muscle, in the following manner. The child was received in the lap of one assistant, and her head allowed to rest on his right arm and chest, by which it was partially secured. The eyelids were kept apart by Mr. Fitzmaurice, and the struggles were prevented as much as possible. With a forceps and an artificial pupil knife I easily divided the conjunctiva from below upwards, about three lines distant from the cornea, and thus exposed the sclerotic coat. The edges of the incision almost immediately became swollen, from the effusion of blood and tears into the connecting reticular tissue, forming a partial chemosis. Very slight hæmorrhage took place from the divided vessels of the conjunctiva, which was checked by the application of cold water. Upon the eye being again exposed, the incision was readily recognised, and introducing a small blunt probe between its edges, I separated the reticular tissue, connecting the inner portion of the conjunctiva to a sufficient extent to enable me to reach the insertion of the inner rectus; I then introduced a bent probe, and directing it from below upwards, had little difficulty in inserting it between the tendon of the muscle as it approached its insertion, and the sclerotic coat. Thus, having the muscle on the probe at my command, I allowed the eye to rest for a moment or two, and then carefully and gently drawing the tendon towards the incision of the

njunctiva, I divided it with a pair of common scissors, and thdrew the probe.

The eye soon resumed its normal position, and the axes of ith harmoniously corresponded. On the division of the uscle the eye was not *forcibly* drawn outwards, it gradually urned to its place. The lids were now allowed to remain sed; a layer of lint, dipped in cold water, was placed over em, the following powder was given, and the child soon after l asleep:

Calomel, 2 grs.; James's powder, 3 grs.

12. Both eyes are perfectly straight, and follow each other's ovements with regularity. The child's bowels have been oved three times, and in all respects she is free from fever and citement.

I have performed this operation in two other cases, without y material deviation. One in a child five years old, was ually successful. In the other, that of an old woman of tty, it was unattended with benefit to the strabismus, which s of fifty-seven years' standing.

The operation in another case, that of Mr. Crossland, is ated by Mr. Bennett, as follows:

In the presence, and with the assistance, of Dr. Carroll, . Toogood Downing, Mr. Wardrop, jun., and Mr. H. owning, I performed the following operation:—A bandage s applied to the sound eye, to exclude the light, and the tient was seated on a low-backed chair before the window, d his head reclined against Mr. Downing's chest, who also pported the upper eyelid, by means of the wire speculum. . Wardrop, jun., depressed the lower lid. The patient, who ssessed great moral strength, everted the turned-in eye to his most, and with the greatest facility I introduced a small, fine-inted hook into the inner conjunctiva, about three lines dis-ce from the cornea, and with a very fine, straight knife I ided this membrane from below upwards, to the extent of lf an inch, leaving the hook still attached to the inner seg-nt of the incision. I next separated the divided inner por-n of the conjunctiva from the subjacent sclerotic coat by ans of a blunt probe, and having introduced between the s of the incision the bent probe, I parted it underneath the don of the internal rectus muscle. The hook was now with-

drawn, and the operation was suspended for a moment. I next raised the tendon by means of the bent probe towards the incision of the conjunctiva, so as completely to bring it into view, and with a curved scissors divided it. The eye immediately resumed its natural position. The hæmorrhage did not amount to as much as two drops, and the operation was completed in a minute and a half.

Calomel, 2 grs.; James's powder, 3 grs. A saline draught in the morning.

22. The inner conjunctiva is slightly ecchymosed; the eye is perfectly straight. Mr. Crossland had a good night.

24. Ecchymosis of conjunctiva is disappearing. The state of the patient is most satisfactory.

26. The patient is in every respect going on well; he suffers no pain in the eye; the inner conjunctiva is still reddened, and a layer of lymph exists in the site of the incision; the redness evidently exists for the purpose of reparation, which is going on beautifully, as the patient was not aware of its existence until he saw it by means of a glass. He goes to business to-morrow.

Mr. Bennett concludes his interesting papers by the following observations:

As will be observed, on the perusal of the foregoing cases, and of those which have appeared in the Lancet of April 18th, the operation for the cure of strabismus which I have now successfully employed in five cases, differs in many, and I would say essential, particulars from that adopted by Professor Dieffenbach—indeed, when I first attentively considered the detail of the three cases as reported in the "British and Foreign Medical Review," I was struck with the number of hooks which were employed, and the necessity arising therefrom, for many assistants, who in all operations, but especially in operations upon the eye, too often interfere with each other, and with the operator.

In Professor Dieffenbach's operation, no less than four hooks are employed, and one of these a double one; two for the purpose of keeping the eyelids apart, a third is passed into the conjunctiva, and the fourth, the double one, is fixed into the sclerotica. In none of the cases, with the exception of Catherine Cuthbert's, did I use more than one hook; and in the case

the child, Mary Anne Daly, I used none, having divided the njunctiva with a knife and forceps. This latter instrument nave since found is not, for many reasons, to be depended on as much as the hook; it gives more uneasiness to the tient, and is apt to lose its hold of the conjunctiva, which e hook never does until it is intentionally removed.

Lancet, April 18, 1840, *p.* 135, *and May* 2, *p.* 189.

Dr. Franz also relates two successful cases of the same kind, the *Medical Gazette* for April 17, p. 154, and besides these stances, we have other eminent surgeons who have given ses in the periodicals.

45.—TREATMENT OF STRUMOUS OPHTHALMIA.

By John Walker, Esq., Surgeon, Manchester.

I differ in opinion from those who inculcate the necessity of tiphlogistic treatment in the ophthalmia of strumous subjects. m not aware that any good effects, which may not be obtained other means, can result from its adoption. Strumous oph-almia, according to my experience, always more readily elds to the stimulant treatment, when properly employed, an it does to the antiphlogistic. I make this observation as finitely applicable and true, whether the disease be in the ute or chronic stage; whether it be more or less intense; ether it be confined to the conjunctiva, or have extended to e cornea, or even to the sclerotica; the principle in all these ses is still the same, viz., the necessity to use stimulants. ıt the stimulants to be employed must be selected in accord-ce with the severity of the attack. If the attack be slight, en the milder stimulants will be sufficient, such, for example, the sulphate of zinc solution and the zinc ointment; if some-at more severe, the sulphate of copper solution and the red ecipitate ointment; if very active, the sulphate of copper in bstance; or the nitrate of silver, either in solution, ointment, substance.

In the treatment of this affection it often happens that the ore powerful the application the better the success; while, on

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the other hand, the milder stimulants sometimes appear only to irritate, not to destroy the morbid action. In an acute case, I should generally prefer the nitrate of silver-pencil, applied directly, but lightly, to the conjunctival surface; whereas, in one of a less intense character, I should probably use the sulphate of copper in substance, as well as some of the other stimulants before-mentioned.

The only local adjuvants I deem necessary are such as have a sedative tendency, e. g., warm water, poppy fomentation, saturnine lotion in a tepid state, or a solution of the extract of belladonna. The last, more particularly, is often productive of great relief where the eyes are excessively intolerant of light. In its effects on the iris we have indubitable evidence that it acts immediately, and in a peculiar manner, on the nervous system of the eye. The liquor opii sedativus, in the proportion of a drachm to an ounce of water, is also highly extolled by some surgeons as a local application.

Counter-irritation, by means of blisters, setons, or issues, I scarcely ever resort to. Blisters, more particularly, when applied behind the ears, are very apt to be followed by many disagreeable results: they almost invariably excite inflammation and suppuration of the neighbouring glands, effects which are the more readily produced, on account of the tendency to disease which exists in them, from the presence of the strumous diathesis.

In the management of more obstinate and protracted cases, I must remind you of the caution I formerly gave, as to the excessive employment of the nitrate of silver. If employed a great many times, it may produce more ulceration of the conjunctival surface than will be agreeable; and, therefore, as soon as the symptoms improve, you may properly substitute the sulphate of copper for the nitrate of silver. But I would observe, that I am not one of those fastidious practitioners who would rather permit vision to be destroyed than run any risk of producing an unimportant change in the structure and appearance of the conjunctiva.

The internal treatment should be such as is calculated to increase the energies of the system. The various medicinal agents known under the appellation of tonics, such as the mineral acids, chalybeate preparations, and more particularly quinine,

rn alone be expected to be productive of benefit. Perhaps e sulphate of quina is the best; it may be given in doses of alf a grain or a grain, with a little sugar, to children three or ur times a day.

Iodine is thought by some practitioners to possess properties hich render it useful in the treatment of struma, and particurly of glandular enlargement. In such cases, it often produces very decided benefit; but I very much doubt if it has ny controul over the affections of the eye, although M. Lugol as expressed himself very strongly to the contrary. The rmula recommended by Lugol is the following:—

Hydriodate of potash, ʒj; Iodine, grs. iij; Water, ℥iij. The dose is half a teaspoonful three times a day, for children.

or the enlargement of the glands, the following liniment is ecommended:—

Hydriodate of potash, ϑj; lard, ʒj.

M. Dupuytren, who was adverse to the use of antiphlogistic emedies, appears to have placed the greatest reliance upon the ternal administration of belladonna in the treatment of strumus ophthalmia; and Mr. Middlemore states, that Professor oreff assures him, that he has witnessed the most surprising enefit from the internal administration of the same remedy.

Lancet, Feb. 22, 1840, *p.* 780.

56.—TREATMENT OF GONORRHŒA BY FREQUENT AND WEAK INJECTIONS, WITH SULPHATE OF ZINC.

AN anonymous correspondent of the *Lancet* recommends the following simple, but apparently efficacious treatment of gonorrhœa, which however, the editor of the Lancet states has been adopted for several years back by Mr. Thomas Evans, late of Mortimer street, London.

It consists simply in the *very frequent* injection of a *very weak* astringent solution into the urethra, the only necessary condition being, that the operation should be performed at very short intervals, and the solution so weak as to occasion little or no pain. The solution that I have found to answer best, is that

of sulphate of zinc, in the proportion of one grain to the ounce of water, to be still further diluted if the patient feel the injection painful. Before each injection a jet of urine should be discharged, in order to clear out any morbid contents that may be accumulated in the canal. The instrument used should be a small syringe, surrounded at the point with a little lint, or other soft material, which serves to protect the tender orifice of the urethra from the contact of the harder substance. The operation can be very easily performed by the patient himself, and scarcely needs description. The syringe being filled with the solution, its point is to be introduced a little way into the urethral orifice, and, by a little manual dexterity, the ring or handle of the piston is to be pressed steadily, and the contents of course injected. The syringe is to be retained in that position for about a minute, in order to keep the solution in contact with the inflamed surface, and is then to be removed gently, when the sides of the urethra collapsing, the fluid will be discharged with a jet, and the operation is completed. It should be repeated at intervals of twenty minutes, or every half hour, during the day. The immediate effects of this application, if properly performed, are a very slight smarting sensation in the canal, scarcely amounting to pain, and succeeded very soon by marked relief, in passing water. The scalding becomes greatly lessened after each injection, and is soon completely removed, the cure, in light cases, being accomplished in twenty-four hours, and the most severe which I have had an opportunity of treating, always yielding in the course of three or four days, at furthest. If any pain be caused by the injection, it may be removed at once, by injecting a little cold water immediately afterwards, and diluting the solution a little more. However, it ought to be of such strength as to produce a slight tickling, or itching sensation in the part, and this will subside altogether in a few moments.

Since that time I have had many opportunities of testing this treatment, and it appears to me to be incomparably superior to any other that is at present known, It has never, so far as I have yet seen, been succeeded by any symptoms of stricture, even in those who, from irregularities of life have had frequent recourse to it; nor has it, in any one instance, been followed by testitis, although one might suppose, from the quick removal of the disease, that there might be some danger

a metastasis; but this may be explained by the fact, that though the discharge is *quickly* removed by this plan, still it *gradually*, and not *suddenly* suppressed, as it might be, were e injections used very strong and painful. I wish also to add, at I have tried several other weak solutions, such as those of um, nitrate of silver, and acetate of lead, but I have not und any to be attended with so little pain, or indeed, to swer so well, in every respect, as that of the sulphate of nc.

Lancet, Feb. 22, 1840, *p.* 792.

47.—NEW AND NATURAL METHOD OF REMOVING CALCULI FROM THE BLADDER.

By John Hancock, M.D.

E extract the following from the *Medical Times*, though we nfess ourselves unable to judge how far the experiment would practicable and successful.

"The method now proposed, is to furnish a defensive sheath the irritable coats of the urethra, so as to admit of its dis-nsion by instruments gradually increased in size; by which eans the greater number of cases of calculi may be relieved thout any further operation; whilst others, in which the one is large, will admit of the easy application of the instru-ents of lithotrity.

"The method in question consists in introducing a portion of e intestine of some animal upon a curved tube or catheter, nich is open at the extremity, but fitted with a flexible me-llic stilet, having a rounded head, which serves both to direct e instrument and keep the sheath in place till it enters the adder. Attached to the stilet is also a piece of gut-skin, nich falls over the end of the instrument. The stilet is then thdrawn (which releases the sheath,) and afterwards the theter, and one of larger size is introduced. The sheath, maining in the urethra, is so exceedingly smooth and slippery, at it gives facility to the use of large instruments—guarding e tender coats of the urethra against all irritation, and allow-g it thus to be dilated by the successive introduction of in-uments of larger dimension, through which numerous calculi

will be discharged. This may be varied as circumstances require:—at times used in form of a *cæcum*, or closed at the inner extremity, so as to be filled with water to facilitate the entrance of instruments, especially in cases of malformation or distortion of the part.

The instrument here described is also the best form of a catheter for general purposes, and will often be found to let off unsuspected gravel or small concretions which could not pass through the small perforations of the common one; whilst, in those cases in which a stone is too large to be passed whole, it is plain that it will afford the greatest facility for the operation of *lithotrity*.

Very few persons appear to be aware of the great *dilatability* of the urethra. By continuing the process for a few weeks, it may, with very slight inconvenience, be brought to the calibre of an inch and more; and when we consider how comparatively small a number of calculi exceed this diameter, we shall form some idea what vast numbers might be effectually removed by this means alone.

But I never thought of applying it to the present purpose until lately reflecting on a case stated in the "Edinburgh Medical and Surgical Journal," 1828, of a Scotch clergyman, who adopted an analogous plan for relieving himself from small calculi. The following is the case:—"Having laboured for many years under enlarged and indurated prostate, symptoms of stone supervened, as also perpetual retention of urine, which was never passed for years without the catheter, by the eye of which several small calculi were, at different times, brought out. His urethra was of very large calibre, quite callous, and bearing any freedom. He cut off the vesical extremity of the catheter, had it plugged up very neatly with a ball of silver, attached to a silver wire, to enable it to pass smoothly into the bladder. When introduced, the ball was withdrawn, his forefinger applied to the outer orifice of the tube, and, after discovering the quarry of stones, he removed his finger, when the sudden gush of urine in a large stream often brought one or two calculi along with it."

Medical Times, Jan. 18, 1840, *p.* 155.

48.—ON THE TREATMENT OF CANCEROUS OR MALIGNANT DISEASES.

By R. Carmichael, Esq., Dublin.

I have lately tried a new chemical combination of arsenic, ercury, and iodine, invented and recommended by Mr. Don- an of this city. The instance in which it has been tried is present in the hospital, a case of lupus, engaging the nose d palate, of many years' standing, and which has destroyed e greater part of the nose. He has been using this remedy t four weeks, and a most decisive change has taken place for e better; so much so as to have surprised my confrères of is hospital on the last consultation day. The ulcer of the se is now perfectly healed, while the patient himself is ap- rently much improved in constitution. It is given in the rm of solution; and according to Mr. Donovan's communi- tion in the 17th volume of the Dublin Medical Journal, the oportions are as follows:—

"Of this *liquor hydriodatis arsenici et hydrargyri*, each achm measure consists of

Water, one drachm.
Protoxide of arsenic, one-eighth of a grain.
Protoxide of mercury, one-fourth of a grain.
Iodine, (converted into hydriodic acid,) four-fifths of a grain.

The colour of the solution is yellow, with a pale tinge of een: its taste is slightly styptic. It cannot be properly con- ined with tincture of opium, or with sulphate, muriate, or etate of morphia; for all these produce immediate and copious ecipitates in it. Hence if opiates are to be used during the hibition of this arsenico-mercurial liquor, they must be taken different periods of the day. Tincture of ginger produces bad effect. The following formula is proper:—

℞. Liquoris Hydriodatis Arsenici et Hydrargyri, drachmas duas; Aquæ Distillatæ, uncias tres cum semisse; Syrupi Zingiberis, semunciam. Misce. Divide in haustus quatuor. Sumatur unus mane nocteque.

Thus one-sixteenth of a grain of protoxide of arsenic, and ne-fourth of a grain of protoxide of mercury, would be taken each dose, along with two-fifths of a grain of iodine, which

being in the state of combined hydriodic acid, will be much diminished in energy of medical effect. This is, no doubt, the the proper dose to begin the exhibition of arsenic with; but it will be very soon necessary to increase it.

The division into draughts is here necessary: first, to insure accuracy of the dose, so essential in the case of this active medicine; and next, to prevent injury to the ingredients by the use of a metallic spoon as a measure—the general way in which, unfortunately, the dose of a medicine is determined."

I have been thus full in my account of this new remedy for diseases of a malignant character, to which class I am inclined to think lupus belongs, because I have every reason to believe, from the trial I have made of it, in this as well as in some other cases of a similar nature, that it will be found a most useful medicine. Arsenic has been highly extolled as a cure for cancer, so much so, that it is in general introduced as the chief ingredient in all the secret plasters or applications for the disease; for instance, Plunket's plaster, which is a favourite remedy, known in all parts of Ireland. It occasions great pain, and swelling of the surrounding parts; but it also causes deep sloughs of the cancerous mass, and is certainly often successful, where this is of but little extent, in drawing out, as is the usual phrase, the cancer, together with its roots; but when the carcinomatous substance is of large size, even less than that of a pigeon's egg, I should deem it not only a most painful, but hazardous application.

The *chlorate of zinc* has been, within the last few years, highly extolled as an escharotic for the cure of cancer, It has been brought into notice by Mr. Cross and Dr. Ure, and recommended by such respectable authorities, I gave it a trial in several instances; from which I have come to the conclusion respecting it, that though not so objectionable as the oxide of arsenic, on acccount of the poisonous nature of the latter, it excites just as much pain and inflammation, without destroying to the same extent, the carcinomatous substance; I, therefore, do not feel any inclination to try it again.

With respect to the narcotic tribe of remedies, such as conium maculatum, belladonna, and hyoscyamus, I shall briefly observe, that although I have, perhaps, seen as much of this disease as any other man, I never saw a patient benefitted by those medicines farther than their influence in mitigating pain,

twithstanding all that Baron Storck has said with respect to eir efficacy. Opium, as a palliative, and anodyne, is vastly perior to any of them.

I need only briefly allude now to what I have said respecting e cases upon which alone I would permit operation. But on this head, perhaps, it is better to speak negatively :—

1st. If the patient possesses that peculiarly pale countenance hich shews a predisposition to the disease, and particularly if ere is any reason to believe, on inquiry, that such predisposion is hereditary, I should decline to operate, no matter nether the axilla is free from disease or that the tumour does t adhere to the pectoral muscle.

2d. I should decline operation if there are any general or ysical signs that the lungs are not sound, or that there is ason to suspect they are tuberculated.

3d. I should also decline operation if the axillary or other mphatic glands in the neighbourhood of the tumour were hard d knotted, or that the breast was adherent to the parts underath.

It follows from these objections against operation, that the ld for it in cancerous complaints is, in my opinion, very mited. In fact, I would confine it to those cases where either arose distinctly from accident or in persons otherwise healthy whom the neighbouring lymphatic glands are totally free om disease. If these exceptions to operation were attended , we should not have those frequent acknowledgments of its ant of success detailed by the most celebrated practitioners in urope.

Mr. Carmichael's Lectures.—*Dublin Medical Press, March* 4, 1840, *p.* 154.

49.—TREATMENT OF GONORRHŒA.

By M. Velpeau.

'inding that copaiba so frequently disagreed with the stomach, I. Velpeau introduces his doses of ʒ i. of the balsam, mixed ith four ounces of a viscid fluid and a little opium, up the ectum in the form of enema. Although the patient can eldom retain this long enough, yet in some cases the effects

are precisely the same as when the balsam is taken into the stomach: it soon cures the disease. But M. Velpeau's favourite remedy is a mixture of copaiba and cubebs, as follows:

Take of balsam of copaiba two drachms, powdered cubebs six drachms, powdered opium two grains, mix, and add sufficient carbonate of magnesia to form a paste, which is to be divided into six parts—one to be taken three times a day, and, generally speaking, three doses will effect the cure. But we should not discontinue the administration of it for a few days after, as if we do, the discharge is very likely to return, and, what is worse, in increased quantity. By following the plan I will now lay before you, you will be able to act most beneficially for your patient. Commence by ordering the medicine according to the preceding formula for *three days*, then one day is to be passed without any being taken; on the fifth it is to be resumed, and continued for three days more—then an intermission, and on the ninth commence again and continue for three days more; this will be found mostly to be quite sufficient. You must, however, always pay particular attention to the state of the stomach and bowels during its use.

Speaking of the nitrate of silver as an injection, which he prefers to sulphate of zinc, and all other injections, he says:

I have tried it myself very frequently, and of various degrees of strength: with one grain to the ounce it has been eminently useful, particularly in old standing cases, when the quantity has been increased to two grains to the ounce. Of four patients treated according to this plan, two were cured in five days, thus affording proof of its efficacy in the chronic form; but when carefully used, together with compression of the urethra, it is also very useful in the acute stage. The way in which the compression is to be made is by the application of small compresses placed along the lower portion of the urethra, (the bulb and membranous portions,) and retained there by a bandage; the solution is then to be injected, and retained in the canal for two or three minutes: this is to be repeated two or three times a day; and after continuing this for three days I stop, but return to it again if the complaint be not entirely removed. Proceeding on this plan, several patients in whom the complaint had

isisted all other remedies have been cured; but in using com-
ession, you should be aware that occasionally the glans penis
d prepuce become inflamed, and of a greater or less livid hue:
ese circumstances, however, should not deter us from its use,
t as these symptoms arise, so they should be treated by
rm fomentations, emollient enemas, taking care not to keep
the compression for too long a time. A good deal has been
id of the injurious consequences following the use of injec-
ns, some asserting that the fluid may pass into the bladder,
d produce fatal inflammation of it; so much has this been
oken of, that many of the more timid practitioners have en-
ely discarded the use of these remedies, but in my opinion
ese serious accidents are merely chimerical. It has likewise
en asserted, that they are the cause of stricture being formed:
w, I do not consider so, as stricture is but the thickening of
e lining membrane of the urethra; it is more likely to ensue
m long standing inflammation than the use of astringents.
ow then can we reconcile the fact of their being produced by
e very means that destroy that inflammation most speedily?
hen again, how many individuals have stricture who never had
norrhœa; and others who have never made use of injection;
nce from all I know concerning this complaint, I consider
jections are very powerful and useful remedies, especially in
e chronic forms of gonorrhœa, and in this last form the solu-
n of the nitrate of silver certainly ranks the highest.

Medical Times, Feb. 1, 1840, *p.* 187—*and Feb.* 22, *p.* 223.

Mr. Carmichael is equally fond of injections of the nitrate
silver in these complaints, but in much smaller quantities.
e uses only one quarter of a grain to the ounce, and seldom
ncreases it to a grain.

From the beneficial effects of nitrate of silver on external
onorrhœa, and primary ulcers arising from the same poison,
prefer it to all other ingredients employed in the composition
f injections, but direct it in such proportions as will not in-
ame the urethra, and therefore usually begin with a quarter of
grain to an ounce of distilled water, increasing the proportion
f the metallic salt gradually to that which can be borne with
mpunity; but this has seldom amounted to a grain to the
unce. The patient is directed to use it three or four times

daily, (always after passing water,) by means of a bone or gum-elastic syringe, and to retain it in the urethra, by closing its orifice for a few minutes after each injection. In women, on the contrary, we may order, without risk, two, three, or four grains of the nitrate of silver, to an ounce of distilled water; and as in them we can employ this remedy of sufficient strength without apprehension of unpleasant consequences, the amendment is proportionally rapid. When this injection answers, I never employ any other; but injections of a solution of acetate of lead, or sulphate of zinc, in plain distilled or rose water, have their advocates. From one to three grains of either, to the ounce of liquid menstruum, are the usual proportions. The first appears to me to be the most applicable while any inflammation remains. M. Ricord speaks in high terms of a solution of the iodide, or proto-ioduret of iron, as an injection. He has used from one to eighteen grains of this prepartion to an ounce of distilled water, but I should not feel inclined to go much beyond his minimum proportion. It is a powerfully astringent substance, and although I never myself employed it, I think it right to notice an application recommended by such high authority on the subject.

And speaking of the treatment of the same disease with nitrate of silver in females, Mr. Carmichael says:

The stages of the disease are the same as in men, and may either occupy singly the vulva, vagina, urethra, and uterus, or two or more of these parts at the same time. The first stage, or that of inflammation, usually attended with some ardor urinæ, should be treated on the antiphlogistic plan, for it is seldom that a medical man is consulted on the first appearance of the disease, so as to enable him to extinguish it at once by the application of nitrate of silver in solution. I should, however, feel no hesitation in making the attempt, were I consulted on a case sufficiently recent to afford a prospect of success. For, if the disease has not extended into the urethra, no danger is likely to arise from the application of the solution in question, (even of considerable strength—for instance, ten grains to the ounce of distilled water,) to the surface of the vulva and vagina. But, unfortunately, we seldom have an opportunity of thus speedily extinguishing the disease, as in at least, two-thirds of the cases of gonorrhœa in females, the urethra is affected; so

it would be necessary, in most instances, to apply the solu- to this passage, as well as to the vagina, which would be bjectionable as in males.

Dublin Med. Press, April 29, 1840, *p.* 283—285.

50.—HYDROCLORATE OF BARYTA IN STRUMOUS OPHTHALMIA.

By Dr. Payan, of Aix in Provence.

extract the following chiefly for the purpose of showing Dr. Payan agrees with Mr. Phillips in extolling the effica- f barium in scrofulous diseases, as will be seen by referring he 39th article in this work.

Dr. P. having observed that this remedy was used with ex- nt effect by Lisfranc in scrofulous diseases, he resolved to tt in an obstinate case of ophthalmia accompanied by a high ree of photophobia. The patient was six years of age. He olved two grains of the hydrochlorate in three ounces and a half of "eau sucrée," and this quantity was taken in por- s during the course of the day. No particular effect being luced, on the third day three grains were taken, and the was gradually raised to ten grains in the course of the day. the twentieth day the medicine was discontinued, the pati- being considered nearly well. In another case, twelve ns in the course of the day were taken with excellent effect, without any symptoms of gastric irritation being produced. ing the administration of the remedy, Dr. Payan orders a t and sparing diet, considering that harm is frequently done he tonic medicines and stimulating regimen which are gen- y ordered as a matter of course in strumous ophthalmia. true that the scrofulous constitution is often accompanied n atony which is marked by a pale and pasty complexion, le circulation, a low degree of sensibility, and a general llence of mind and body; but the same scrofulous disposi- is frequently developed in persons of a lively temperament, nated countenance, habitually quickened circulation, and ile and easily excitable nervous system. It is in this latter s of persons that we most frequently find that acute sensi-

bility of the retina which produces photophobia, with the accompanying spasmodic contraction of the eyelids, and abundant secretion of tears. In these cases, a generous diet with wine and tonics will increase the general excitement, and consequent irritability of the retina, whilst the barium appears to act as a sedative, and combined with a mild diet produces a general soothing effect.

Revue Medicale, and British and Foreign Med. Review, April 1840, *p.* 552.

51.—CURE OF AN OLD DISLOCATION OF THE HUMERUS, BY DIVISION OF THE MUSCLES IN ITS NEIGHBOURHOOD.

By Professor Dieffenbach, of Berlin.

Herr Th., a large landowner, upwards of thirty years old, had his right shoulder dislocated two years ago by a fall from his horse; the nature of the accident was not at first recognized, and afterwards, though all the usual means were adopted by several surgeons, the bone could not be returned to its place. The patient, therefore, came to Berlin; he was of a gaunt powerful form, with a pale complexion and but little fat, and his muscles were strong and prominent under the skin. The injured right shoulder was an inch higher than the left; the acromion formed a sharp angle; on the outer side the shoulder was deeply hollowed, and the scapula lay flat. The right arm was thinner than the left, and stood out far from the body. The head of the humerus lay on the anterior side of the chest, close to the clavicle, and two inches from the upper portion of the sternum. The patient had a constant sensation of cold in the limb, and the creeping which he had formerly felt had ceased. The pulse in the right radial artery was rather weaker than that in the left. The limb was useless, and only the hand could perform some slight actions.

By moving the arm in different directions, severe pain was produced in the part where the head lay surrounded by a thick wall of dense ligament into which it had worked itself. In drawing the arm outwards from the body, the pectoralis major, latissimus dorsi, teres major, and teres minor became tense with extreme pain. The last three of these muscles felt hard and

se, even when the arm was not drawn outwards. An attempt reduce such a dislocation without dividing these muscles and new joint would have been extremely dangerous, and had n found impossible; but (says the professor) I anticipated cess from the subcutaneous division of everything that re- ed me.

The patient being placed on the table, with one folded sheet sed under the right axilla, and held by six assistants, another ened round the right hand and held by six more, and a d round the upper part of the humerus held by three more the manner usually adopted by me in old luxations), the first sets of assistants were ordered to pull against each er. I next bade them make a slowly increased extension, then stop; I then passed a small scythe-shaped knife ough the skin, and divided the most tense portion of the toralis major close to its tendon, which yielded with a crack- sound. I then again introduced the knife at the posterior der of the axilla, and divided, one after the other, the latis- us dorsi, the teres major, and the teres minor. All these scles gave way with a cracking noise, which was increased the resonance of the chest. I next passed my knife into ee places by the head of the humerus, and divided, in a ilar manner under the skin, the dense and hard false liga- nts which surrounded the new joint, and lessening the ex- sion, I loosened the head by a few rotations.

A powerful extension was now again commenced on both s, and the three assistants behind the patient pulled suddenly ile I conducted the humerus towards the joint into which it pped on a sudden, without again springing out. One shoulder ked now just like the other. The thorax, the shoulder, and arm were enveloped with bandages which were soaked with te, and after a few hours they all became dry and hard, and vented any motion of the right side.

The bleeding from the wounds, which were not larger than se made in phlebotomy, was at most, a few drops. No un- asant symptoms ensued, and the patient suffered even less n the majority of persons in whom I have reduced old dis- ations. On the ninth day I took off the bandage; both ulders had exactly the same level and form, and there was ther swelling nor pain. The punctures in the axilla had npletely healed, and scarcely a trace of them could be found;

there was no collection of blood or pus. The arm was already capable of motion, and its actions were far less hindered than they are sometimes after the reduction of recent dislocations; because in them there is often for a long time a sensitive contraction of the unnaturally stretched muscles, while in this case the division of the resisting muscles and of the newly formed joint not only rendered the reduction possible, but at the same time diminished its after consequences. The limb is now restored to perfect utility.

The Professor adds that he had lately occasion to reduce a luxation of the foot backwards of upwards of a year's standing, by dividing the tendo Achillis, which forcibly drew the heel upwards. This limb also became useful again.

Medicinische Zeitung, Dec. 18, 1839, *and British and Foreign Med. Review, April* 1840, *p. 555.*

52.—TREATMENT OF VARICOSE VEINS.

By A. T. S. Dodd, Esq., Surgeon of the Chichester Infirmary.

Mr. Dodd gives a list of eleven cases in which his treatment of these troublesome affections was unusually successful. An interesting article on the same subject will be found in the preceding number of the *British and Foreign Medical Review*, by M. Bonnet, to which this of Mr. Dodd's forms "an appropriate English appendix." He observes:

The plan of treatment which is the subject of this communication was first recommended, as far as I know, by M. Velpeau. It consists in passing a needle (I prefer a flat one, slightly curved at the point, such as is used in inspections,) through the integument, a little to one side of the vein, taking care that it shall go under the vessel, without wounding it, and bringing it out at the same distance on the opposite side. A waxed silk ligature is then passed round the projecting ends of the needle in form of a figure 8, just as it is applied in hare-lip. The projecting point of the needle is guarded by a little bit of cork, to prevent its catching in the clothes, or injuring the other leg. Very slight pressure is sufficient to accomplish

the object to be gained by the ligature, therefore it need not be drawn tighter than is necessary to obstruct the circulation through the vein. In about from twenty-four to thirty-six hours, inflammation is excited in the immediate neighbourhood of the ligature, which goes on increasing slowly while the needle remains. As this inflammation is the effective means of cure, by producing permanent obstruction to the flow of blood through the vein, and obliterating the cavity of this vessel, it is obvious that it should be allowed to proceed just so far and no further than is necessary for the accomplishment of this object, and that the length of time which the needle is allowed to remain must be entirely regulated by this. My colleague, Mr. Duke, and I have generally found that from four to eight days have been sufficient to effect our object, though the exact time must of course vary according to the nature of the individual constitution and its aptitude in taking up the inflammatory action. I am guided by the appearance of the local inflammatory symptoms, and by the fact of the commencement of ulceration at the point of the skin where the needles pierce it. If this has begun, it is time to remove the needle, and, generally speaking, enough inflammation is found to follow for the sealing up of the vein. If ulceration has not taken place when the needle is withdrawn, it is generally necessary to repeat the operation, from the circulation being renewed through the diseased vessel. At the same time it is necessary to be careful not to allow the process of ulceration round the needle to remain in action long, as from this cause, in one case, troublesome ulcers resulted in this very spot, though the sore for which the practice was adopted was cured. I have not found this to occur when the above precaution was adopted. The only adjuvant treatment that has generally been required is low diet, recumbent position, and, when the needles are withdrawn, the application of the warm water dressing. Should the inflammation appear more than needful, of course the treatment would be modified as circumstances arise.

The time required for the cure must of course vary much, acccording to the peculiarities of the case, from the habit of the individual, or the nature of the disease. In all the cases, but one, that we have treated, there was an ulcer connected with the diseased veins, but the duration of the treatment seemed to be not at all influenced by the previous duration of

the ulcer, or indeed of the diseased state of vein. If the system bore the operation kindly, and too great irritation and inflammation was not set up, the cure generally proceeded with rapidity, and was always effectual and permanent, if the treatment was carried to a proper extent. The shortest period required in any of our cases for the completion of the cure, was three weeks, the longest seven weeks. The one case, which was of simple varicose veins, without an ulcer, had them immensely enlarged, and acutely painful and tender, and apparently ready to burst, so that the patient was unable to attend to her duties. Four weeks were here sufficient to make a permanent cure, the affected veins being reduced to a hard cord.

With regard to the number of needles necessary to be applied, though one was sometimes found to accomplish the obliteration of the vein, yet it was found a more effectual plan, and not productive of more after-suffering, to insert two under the same vein, at about two inches distance apart, though it is not always that the enlargement of the vein offers sufficient length for this. Where, however, it does, the obstruction produced by the two needles is more certain, and more effectual, without any greater risk, as far as my experience goes, of injurious effect to the vein. In some cases the ulcer does not yield, or yields only partially, to the application of the remedy to one vein, and then it is necessary to take up a second, or even a third, found in its vicinity. In one instance an enormous ulcer was rapidly reduced to about a fourth of its size by the obliteration of one vein; but though five needles were at different times inserted, and effectually, as regards the obstruction of the veins, yet the ulcer was never effectually cured. In the case of varicose veins, unaccompanied by ulcer, Mr. Shute, the house-surgeon, under whose care it was, inserted at the same time five needles—two upon the principal branch, and three others upon branches in the immediate neighbourhood, which communicated with it. Some erysipelatous inflammation was excited, which readily yielded on the removal of the needles, on the eighth day. The number of needles, however, which we employed in most of our cases was two.

The rapidity with which the curative effect upon the ulcer displayed itself was surprising. In twenty-four hours the commencement of cicatrization was seen in one instance, and in

forty-eight hours the tender cuticle had more than half covered the granulations. This was not, however, so strikingly the case in every instance, though in all the progress was satisfactory. I observed, however, that the latter stages of healing were not commensurate with the earlier, in the progress of cure being much slower, and, in one instance, remaining stationary, after being readily reduced to about a fourth of its former size.

I was struck with the appearance of the cicatrix in all these cases. Instead of the reddish tender-looking cicatrix which we usually find after a recently healed ulcer, I observed that after the application of the needles the resulting cicatrix had, in the course of a few days after its formation, the firm whitish appearance of one of considerable standing, and even a scar of an old wound, in the neighbourhood of the ulcer under treatment, had its appearance modified, in becoming clean and free from a scaly incrustation, and assuming the white fine appearance of a healthy cicatrix.

Med. Gazette, Dec. 20, 1839, *and British and Foreign Med. Review, April* 1840, *p.* 575.

We also add the opinion of Mr. Phillips, surgeon to the Marylebone Infirmary.

Some years ago, Davat proposed that veins should be obliterated by passing needles under them, and twisting threads tightly under the needles. The operation has been variously modified by Velpeau and others, and is, in my opinion, a successful operation. It has been performed very frequently, and I know of only two accidents, and they happened in persons whose general health was bad. The mode in which I perform the operation is to choose a large varicosed trunk, to pass one or two needles under it: if the latter, I leave an interval of an inch or more between them. I then twist a ligature around, not tight enough to strangulate the tissues and cause an ulcer, but merely tight enough to prevent the blood from circulating. At the end of six, seven, or eight days, I remove the ligature, and I am mainly guided as to the time of the needles becoming loose, by a little purulent oozing taking place around them. At first, the portion of the vein below the ligature is distended, but at the end of three, four, or five days, this is materially lessened, a coagulum is formed, and the vein feels firm. If two needles be inserted, a certain quantity of blood is included

between them; and when this feels quite firm, we may safely remove the needles.

Mr. Phillips' Lectures.—*Medical Gazette, May* 1, 1840, *p.* 211.

53.—TREATMENT OF STRICTURE.

By Bransby Cooper, Esq., F.R.S., Surgeon to Guy's Hospital.

(Abridged from Guy's Hospital Reports.)

Mr. Cooper commences his paper by stating that strictures have usually been divided into permanent and spasmodic. The doctrine of spasmodic stricture, however, he states, "has its sole origin in the hypothesis that the urethra is partially composed of muscular fibres of which there is no evidence." On this point however, many eminent surgeons disagree, and amongst the rest, Sir B. Brodie, who says in one of his lectures, "this leads me to the division of spasmodic and permanent stricture. I am aware that the existence of the former has been doubted, but I have yet to learn on what grounds."

In speaking of the treatment of stricture, Mr. Cooper says:

That something more is to be thought of than the removal of the mere obstruction in the urethra. It will generally be found that the mechanical application of instruments will contribute but little towards a radical cure, unless combined with the judicious exhibition of constitutional remedies. Strictures of recent date may always be cured by gentle means and frequently by constitutional remedies alone; and even when they have reached the state of permanent obstruction to the passage of the urine, their cure may be effected without the application of force in the passing of instruments. In the cure of stricture by the use of the bougie, the object, in my opinion, ought not to be, to force the instrument through the obstruction, but to press it upon it, or into its substance, where the nature of the latter admits of it, so as to alter the action going on in it, to induce inflammation, softening-down, and

removal by absorption; in short, to employ the instrument "*arte non vi*," as was recommended by the great Dupuytren. Of course, such general remedies should be exhibited at the same time as appear likely to conduce to the removal of the obstruction. Where the stricture is irritable, as is indicated by its tendency to bleed, and by the peculiar diathesis of the patient, recourse should be had to opiates, the warm bath, and caustic bougies. In cases where a disposition to spasm is observed, bleeding, opium, and belladonna injections will be found useful. Where the stricture, from its thickness, resists the gentle application of bougies, I have been very successful in rendering it permeable by injecting warm water into the urethra from a long canula, to which a syringe is attached; and by careful, continued, and gentle pressure with this instrument, I have almost invariably succeeded in effecting a radical cure. In cases of irritable stricture, sedatives should be administered to allay the constitutional irritation; leeches may be applied to the perinæum, as also belladonna fomentations, and the *gentle* use of the bougie may be recommended; but should the application of this be followed by bleeding and great pain, a very small piece of potassa fusa may be passed down to the stricture, and will be found to be an almost infallible remedy for the symptoms of irritability. In cases of this kind force should never be used; for it is frequently destructive of the organization of the urethra, and is sometimes fatal to the patient.

The forcible introduction of a catheter or sound into the bladder is only justifiable in a few cases; and never where it cannot be effected without great violence, and without risk of laceration. Where the patient presents severe symptoms of retention, requiring immediate relief, such as great distention of the bladder, great constitutional irritation, and violent pain, an attempt should be made to pass a catheter: and if this instrument can be brought to a right angle to the position of the recumbent patient, and then, and not till then, becomes checked in its progress to the bladder, it is plain that the obstruction is situated at the membranous part of the urethra, where the operator may safely use force, if he apply it judiciously, and by depressing the handle of the instrument: for the risk which would be incurred in other portions of the urethra by such a proceeding is here in a great measure precluded by this portion of the canal being firmly connected to the surrounding parts of

the deep fascia of the perinæum, and by the instrument itself being here guided and protected in its course by the ossa pubis.

But even in these cases, it is impossible to describe the *degree* of force which it is proper to resort to: language is inadequate to express the infinitely various exigencies of particular cases; the extent to which force should be carried can only be prescribed by the experience and tact of a practised surgeon, who has a perfect knowledge of the anatomy of the parts. Some surgeons would in such cases recommend force sufficient to thrust the instrument into the bladder: but I am confident that this is bad practice, and that it is much safer to cut down upon the membranous portion of the urethra than to risk the laceration of the canal, the perforation of the prostate gland, or the forcing of the instrument into the rectum; for all these are casualties to which violent treaters of stricture are liable; and I have known them to occur frequently. A stricture lacerated by this operation is, morover, almost certain to recur; nay, to become more impervious than ever, as soon as the instrument is no longer regularly introduced: so that not only are the above risks incurred, but no ultimate good is effected.

I hold, then, that where the symptoms are urgent, and the stricture is situated posteriorly to the deep fascia of the perinæum, force may be employed with propriety; but that where the stricture is at the bulb, though the symptoms are not more severe, an operation should be performed. In such cases as I have just described, however, force, as it has been before observed, should only be used to the degree which the experience of the surgeon forbids him to exceed: where it remains without effect, and delay is admissible, warm baths, enemata, bleeding, or opium with small doses of tartarized antimony, may be tried as constitutional remedies, together with such local means as injection of solution of belladonna, or friction with mercurial or iodine ointment. Where the symptoms are urgent, and the surgeon, even after these pharmaceutical remedies, again attempts in vain to pass the catheter—always recollecting that much less force should be employed where the stricture is situated anteriorly to the membranous portion than in strictures of that region itself—he should immediately propose the operation of opening the membranous portion of the urethra.

Mr. Cooper then proceeds to describe the way in which the surgeon is to cut down upon the urethra; which is to be done by "an incision of about two inches in length made in the course of the raphe of the perinæum, dividing the superficial fascia." But although the surgeon may by this means relieve his patient, by introducing the female catheter from the incision into the bladder, yet he will not produce a permanent cure, and therefore

The question now arises, in what manner a complete cure is to be effected. This depends upon the situation of the stricture. If, as is usually the case, it is behind the scrotum, the following means should be employed. The urine having been drawn off, as described, through a female catheter, a male catheter should be passed through the penis down to the stricture: its point should then be felt for, with the finger, in the incision which has been made in the perinæum; and will be perceptible through the thickness of the stricture, the distance between it and the finger being, of course, the depth of the adventitious growth which constitutes the stricture. This must next be divided by the knife; and the male catheter may then be passed on into the bladder, through the opening which had been made for the introduction of the female catheter. The instrument is afterwards to be kept in the bladder, and the patient put to bed. I decidedly recommend that the catheter should be left in the bladder, though this practice has been condemned; for without it, the divided stricture would certainly close again, and become more permanently firm than ever, the urine would be extravasated into the perinæum, and the patient would be subjected to these additional sources of irritation, if nature did not convert the perinæal opening into a permanent fistulous passage, which is sometimes effected by the formation of a new mucous lining, admitting the passage of the urine with impunity. Where the stricture is situated in the penis anteriorly to the scrotum, it is not safe to divide it with a knife, from the difficulty of afterwards closing the wound: and therefore it is better in that case, only to draw off the urine through an incision in the membranous part of the urethra, by means of the female catheter, and to treat the stricture afterwards, by passing

bougies, in the same way as where immediate relief is not required.

Guy's Hospital Reports, April 1840, *p.* 74.

54.—NEW PREPARATION FROM THE PIPER CUBEBA.

By W. H. Judd, Esq., M.R.C.S., Secretary of the Royal Medico-Botanical Society.

(Abridged from the Royal Med. Bot. Transactions.)

Lately an extract has been prepared from this spice by Mr. Toller, and he did me the favour to furnish a liberal quantity, to enable me to ascertain, by its effects in practice, its real medicinal merits and advantages over the common forms in use. The extract, as prepared by Mr. T., appears to me to retain that resinous part which (acccording to Vauquelin,) resembles a similar efficacious part that abounds in copaiba. For this extractum cubebæ, when taken into the stomach in 15 grain doses, occasions an aromatic warmth in that viscus, a sense of coldness in the fauces, urethra, and rectum, similar to that produced by peppermint, a little quickness of pulse, a diuretic effect on the kidneys, a peculiar smell in the urine, and a rapid diminution in the discharge from the urethra. These are proofs enough, I take it, of its fully retaining, in this form of extract, the active curative qualities found in the spice, and to show that, from this extract, they arrive at the urethra little altered by the action of digestion, or by passing through the circulation and kidneys; I have merely to state, that a single dose of five grains, in a healthy person, will, in two hours, impart to the urine a peculiar well-known odour, and that continued doses will impress the urethra with a cooling sensation, and, in a few days, arrest its diseased secretion. In short, it appears to possess all the properties that are known to exist in copaiba, turpentine, and this class of remedies.

Mr. Judd then goes on to describe the different stages of gonorrhœa; first, when the patient feels a peculiar irritation resembling a "worm creeping up the urethra," which ends in a thin colourless discharge; secondly, when the discharge becomes

thick and yellow, and the scalding in making water increases considerably; thirdly, when the case assumes the form of a gleet.

Cubebs will always be found capable of lessening or removing the very first issue of discharge and the irritation accompanying it, whilst the former is thin, and before the inflammation in the urethra has become sufficiently great to induce the formation of puriform fluid. If cubebs be taken but an hour later, they only serve to aggravate the disease in its second stage.

Cubebs again are highly beneficial when the discharge is great in quantity, but thin and transparent; aud therefore, in the third stage, they often act as a charm, and effect a cure in a few days.

Cubebs have another invaluable quality, that of being applicable and beneficial to the stages of urethritis in which copaiba aggravates all the symptoms; and, lastly, when this remedy has sometimes been found ineffectual in thoroughly removing the discharge, it renders the disease so mild that turpentine and copaiba are then found to be, by it, rendered certain in their curative effect.

Several cases are related, where the cure was accomplished in a few days. The dose was about fifteen grains of the extract three times a day.

The process for the preparation is as follows:—The cubebs are exhausted by repeated digestion in alcohol, which readily takes up all the active principles of the pepper, viz., a resin resembling that of copaiba, and a coloured resin, with an almost concrete essential volatile oil. The alcohol is distilled off from these tinctures at a temperature so moderate as not to volatilise the essential oil: when the operation can be conducted no further in this manner, the evaporation must then be carried on in an open vessel by the aid of a water-bath, at a still lower degree of heat: a little finely pulverised Spanish soap should now be added, to prevent the separation of the resin and preserve the extract of an uniform consistence; with careful attention to the temperature, it is thus brought to the requisite consistence for forming pills.

Med. Bot. Transactions, 1839, *vol.* 1, *pt.* 4, *p.* 29—36.

We will here place before the reader some interesting remarks on cubebs, made by Mr. Morgan to the Surgical Society of Ireland, in January last.

The extraordinary and conflicting testimony of authors and lecturers on the value of cubebs in cases of gonorrhœa were, to say the least, curious ; one man extolling the peppers as a specific, while the other never saw a single case cured by their administration. Supposing then, indeed, of which there was no doubt, that the *essential* oil was the active medicinal principle, the problem was easily solved. On looking into the history of the Java pepper, he found that it, like most other vegetable products, was largely adulterated, and shamefully prepared for medicinal use. The London and Liverpool wholesale druggists, who supply the apothecary with the drug, send it chiefly in the state of powder, having previously added a fair proportion of pimenta berries, and Turkish yellow berries, (that is, the dried fruit of the rhamnus catharticus,) and it is much to be feared also, deprived it of a large proportion of its essential oil. But, taking for granted all was right, no adulteration, no extraction of the oil, its being so kept in the powdered state by the apothecary, the essential oil is rapidly dissipated ; and on looking at the cover of the containing jar, the oil is seen largely adhering. Those facts induced him to speak to Mr. Herron, the respected proprietor of our national medical hall, on the subject, and he fully and entirely agreed in the propriety of purchasing a mill, and grinding the whole pepper as the prescription came to his compounding department. The result was most satisfactory. That the recently ground cubebs contain a much greater proportion of essential oil, Mr. Morgan satisfactorily proved by a simple experiment. He procured from different shops in town samples of powdered cubebs, among them one ground in London late in the past year, as also one recently ground in Mr. Herron's mill. He placed each sample separately in several folds of bibulous paper, and subjected them to pressure. On examining the packets, he found that those had in the powdered state, scarcely soiled the envelopes, while that *recently ground* perfectly saturated all the folds: he considered that the experiment also proved the necessity of dispensing the medicine in stoppered bottles ; or, what would answer equally well, and pay the apothecary better, in

waxed papers. The thirst for adulteration was so great that they even tampered with the unground pepper; but in that state it was easily discovered. The pimenta berries want the foot stalk, are bilocular, and contain two seeds; the cubebs, one; the rhamnus catharticus, four. To prove the thing practically, Mr. Morgan selected twelve cases of gonorrhœa indiscriminately. He treated six with the recently ground cubebs, and six with the powder had from different shops. He would detain them for a few moments, and mention a case which he considered conclusive on the matter. A gentleman, in June last, contracted a gonorrhœa, and was treated by a physician enjoying a large practice, who dosed him most unmercifully with the ordinary cubebs of the shops for twenty-four days, without the slightest effect. Mr. M. saw him after, and injected him with nitrate of silver effectually. In a few days he went to the country, and became again diseased—was a second time dosed with provincial cubebs, perhaps some years on the shelf, with the same result. He returned to Dublin in December last, and being rather of an amorous disposition, was induced a third time to taste of the forbidden fruit, but the temptation proved unfortunate. He saw him, and much against his will prevailed on him to take cubebs; for he jocosely remarked that nature never intended his stomach for a saw pit. Mr. M. saw them ground and dispensed in a stoppered bottle. He took them in the usual dose with six grains of nitrate of potash three times each day; on the fourth day the discharge was considerably lessened, and on the seventh entirely disappeared. It was quite clear idiosyncracy had nothing to do in this case; the inferiority of the medicine, and the total neglect of the preservation of the essential oil, being the cause of failure in the former administrations. For his own part he preferred giving the essential oil, if he could rely on its purity. The dose being small, and when given in the form of emulsion, is both seemly to the eye, agreeable to the taste, and less likely to cause derangement of the stomach and bowels.

Sir James Murray bore testimony to the facts put forward by Mr. Morgan, particularly with reference to the use of essential oil. He had lately witnessed a case in which the essential oil proved quite superior to the substance from which it is extracted—he alluded to valerian.

Dublin Med. Press, Feb. 12, 1840, *p.* 112.

56.—TREATMENT OF PERIOSTITIS.

By J. M. Ferrall, Esq., M.R.I.A., First Medical Adviser to St. Vincent's Hospital.

Mr. Ferrall has tried the three principal modes of treatment usually adopted in this disease, viz.—1st, by incision, 2nd, by mercury, and thirdly, by hydriodate of potass. By the first the cure was completed in twenty-eight days; by the second in thirty-seven days; and by the last in thirteen days: relief was more *immediately* procured by incision, that is by cutting down upon the bone through the periosteum for the space of about two inches, but the cure was, nevertheless, protracted.

He gives from eight to twenty grains of hydriodate of potass three times a day in the third mode of treatment.

In comparing the results of different modes of treatment in this painful disease, you have to consider—1st, by which is the pain most speedily relieved,—2ndly,—which restores the power of using the limb soonest to the patient,—and, 3rdly, which plan of treatment is attended by least danger and inconvenience.

As regards the immediate relief of pain, there can be no doubt that incision, where it succeeds, has greatly the advantage of the mercurial treatment. The merit of having insisted on this practice in periostitis is due to Sir Philip Crampton, whose excellent practical paper on this subject you will find in the first volume of the Dublin Hospital Reports. I say, *where it succeeds*, for some of the cases in the essay to which I allude are indicative of its uncertainty, except when the surgeon has an opportunity of employing it in the early stage. In one of his cases, in which incision was followed by immediate relief to the part incised, the disease attacked the periosteum immediately below the point of incision, within a week from the first operation. A new incision was now made to relieve the latest point of attack, and relief followed as before; but before this last wound was healed, an attack of pain, which was only relieved by a nightly dose of opium, occurred in the seat of the original incision. In another of his cases, (that

reported by the late Professor Todd) but which was of longer duration, the incision was followed by partial relief, and the patient, a lady, left town, suffering severe pain occasionally afterwards in the country.

The hydriodate of potass is generally capable of controlling the morbid action, and relieving pain in a shorter time than I was prepared to expect. The fifth or sixth dose will, in the majority of instances, enable the patient to sleep; and I have know many instances where the third or fourth dose has produced this effect. I have notes of cases amongst our out-patients, who slept the first night, having taken during the morning and day four doses of the salt, and I have never failed in demonstrating to you, by the usual tests, the presence of the medicine in the urine passed the following morning. The purity of the hydriodate, you are aware, is ascertained, before any new parcel is used by the apothecary. There is very little difference, therefore, in the period at which the pain may be relieved; and when you consider that the iodine treatment avoids a painful, though brief operation, and is not followed by an open sore, I think you would prefer, in your own instance, giving it a previous trial.

The second ground of preference, namely, the earlier period at which the patient can resume his occupation, is clearly on the side of the iodine, for the case treated by mercury occupied thirty-seven days, that by incision twenty-eight days, and that by the hydriodate of potass thirteen days. In the two latter cases, matter had formed beneath the periosteum, and this circumstance, while it accounts for healing after incision being a few days slower than in the first case of Sir Philip Crampton, gives an additional value to the iodine, for it displays its power over the disease, when even advanced to suppuration, and its capability of curing it in a shorter period.

There is another medicine of great power in subacute and chronic periostitis: this is sarsaparilla. I think Sir Philip Crampton speaks too feebly of its powers in this complaint, and indeed he appears to limit its exhibition to those cases in which periostitis is connected with that cachectic state produced by protracted courses of mercury. In these, he says, it may be given with considerable advantage; but he does not say that it is capable of curing the disease alone. I have given it repeatedly with the effect of removing the pain in a few days, since

it was suggested by Sir B. Brodie, a few years ago, in the case of a gentleman who consulted him when attacked in London by this painful malady. In this case there was no mercurial cachexia to give rise to the disease, and here, as well as in several other instances, where I did not expect to have an opportunity of superintending the action of iodine, sarsaparilla has completely succeeded in removing the symptoms.

Mr. Ferrall's Clinical Lectures.—*Medical Gazette, April* 10, 1840, *p.* 117.

57.—ON THE PRE-EMINENCE OF TOBACCO IN STRANGULATED HERNIA.

By Dr. Jackson, of Philadelphia.

The use of tobacco in hernia, and of tobacco or tartar emetic in dislocations, I have long preferred to those copious effusions of blood formerly, and perhaps still, too much in use. To lose blood sufficient to induce fainting, and to preserve the system in this state till a bone or a hernia may be reduced, is an expenditure of the vital fluid, a waste of strength, which very many who are not prone to faint, will not regain for months or years. This is particularly the case in old people, but it also applies to the young who are already in a state of debility or of chronic disease, and to those who from idiosyncracy are slow to recover over.

Ice I have repeatedly tried, but never with the advantage of contracting the tumour; nay, it sometimes appeared to increase it both in size and tenderness.

The Russian method by cups demanded a trial; hence we have covered the abdomen with half pint exhausted tumblers, but they proved as useless in practice, as in theory they were unpromising.

The warm bath and warm fomentations may be tried, but they will hardly succeed in bad cases without the aid of simultaneous bloodletting. It is true that if the patient is greatly relaxed by the general warm bath and blood be let while he is yet in the water, a very small loss may suffice; but this may be in most situations a troublesome remedy occasioning too much delay. Time, said Franklin, is money; but in the treat-

ment of hernia, time is not only money to the physician, but life to the patient, as well as honour to the profession of medicine. Tobacco will do all that bleeding can do, however great the inflammation, all that ice, or cups, or belladonna, or any other means can do, that have ever been invented.

We have never used cataplasms of tobacco to the tumour and stomach, but we intend to give them a trial the very first opportunity. We have very frequently used them with great advantage, for spasms of the bowels, particularly those of saturnine colic, and we do not see why they should not prove sufficiently powerful in hernia, at least, in those persons, who have not become habituated to the continual use of this article. In persons who are very sensible to the impressions of tobacco, a cataplasm to the stomach will soon induce emesis and general relaxation.

Deglutition of tobacco smoke we have used with decided advantage. A few years ago, I was called to a patient in the night, who had been suddenly taken with strangulation of an old hernia: the taxis was gently tried but the tumour was too sensible to bear much manipulation. There was no syringe nor means of administering an enema, nor was there any fire in the house, by which a tobacco cataplasm could be quickly made; hence it instantly came into mind that he might swallow tobacco smoke as a substitute. He was furnished with a cigar and desired to make vehement efforts to pass the smoke into his stomach. He soon became sick and puked, his whole frame relaxed, and covered with a cold sweat. The bowel was now very easily reduced and the free use of volatile spirits both internally and externally, soon restored him.

Whether this method of using tobacco has generally any advantage over the enema, I am not prepared to say. With women, and with those men too, who are delicate with respect to these obscene operations, it may be preferred, for delicacy ought always to be carefully regarded. I have very frequently used it since for spasms in the bowels, and for hernia; but it has several times entirely failed, owing, as I supposed, to the patient's inability to pass a sufficient quantity into the stomach. Those, moreover, who are unfortunately, or, let us say, viciously accustomed to the use of this poison, are not to be overcome by a small quantity. That smoke can be passed into the

stomach by deglutition, I am very certain from my own personal experiments.

Strangulated hernia was of frequent occurrence in my busy and extensive practice, but of all the numerous cases that occurred to me during twenty-five years in Northumberland and its vicinity, every case was successfully reduced. I have performed the operation in three cases only, and these were in the practice of other physicians; one was successful and two were lost by previous sphacelation and a subsequent artificial anus. This success with the taxis, I impute entirely to the prompt and powerful aid of tobacco. If it be objected, that it is a dangerous remedy and that a few patients have been destroyed by it, we reply, that either the disease or the operation is far more to be dreaded than the use of tobacco in careful hands. The scientific physician will consider the strength and idiosyncrasies of his patient, and use the medicine with prudence. When I contrast this with the ignorant temerity with which the nurses and busybodies have often used this article to my knowledge, without measure and yet without detriment, I am fully persuaded that in the hands of skilful, scientific physicians, it ought not to be considered as a dangerous remedy.

American Journal of Medical Sciences, Feb. 1840, *p.* 305.

M. Benoit, in an article in the *Bulletin Medical du Midi,* quotes two cases illustrative of the utility of a recumbent position, with the feet elevated and the head depressed, in effecting a reduction of stangulated hernia. The first of these occurred in the practice of a provincial surgeon. The patient had been suffering from strangulated hernia, which resisted various means employed for its reduction, and it was resolved to divide the stricture. Whilst the surgeon was arranging in an adjoining room the instruments for the operation, a cry of joy from the patient soon brought the surgeon to his side. It appeared that in hopes of alleviating his sufferings, the patient, as he lay on his bed, had elevated and supported his feet against the wall, thus forming an inclined plane of his body, of which his feet were the highest and his head the lowest points. He had not been in this position many minutes when he perceived a rumbling in his abdomen, and the hernia was suddenly reduced.

The second case was one of strangulated inguinal hernia of the left side. M. B. tried the taxis, refrigerants, enemata, &c.

without success. The symptoms being urgent, another surgeon was sent for. Whilst awaiting his arrival, M. B. recollected the case just quoted, and placed the patient across his bed, raised his feet against the wall with his head depressed, and in a short time the reduction took place.

Our able correspondent, Dr. S. Jackson, formerly of Northumberland, twelve or thirteen years ago, resorted to the same position as a means of reducing strangulated hernia in one case. and with equally happy results.

Ibid p. 463.

58.—REMARKS ON SYPHILIS.

By R. Carmichael, Esq., of Dublin.

That accomplished surgeon, Mr. Carmichael of Dublin, differs from M. Ricord, in many of his views respecting syphilis, and as it would be impossible to convey his meaning to our readers so well as in his own words and style, we extract the following observations from his Lectures now being published in the *Dublin Medical Press.* After stating that the experiments of Bell, Evans, and Ricord all support the doctrine of a plurality of poisons, he says:

I would not, on any account, have it imagined, that I would wish to undervalue M. Ricord's observations and undoubted talents for research. His experiments of inoculation with the matter of gonorrhœa and balanite, (the latter we generally call spurious or external gonorrhœa,) fifty-five in number, evince his indefatigable industry; but I could have wished that he had confined these experiments to cases only which afforded thin ichorous matter for inoculation. Out of the entire number, there are only six recent cases—that is, cases which came under his observation within a week after the appearance of the discharge; and of these six it is only stated that in one instance was the discharge of a thin *(sanieux)* nature.*

* M. Ricord's process of inoculation to ascertain whether or not the sores presented are truly syphilitic, is now so well known to the profession, that we need hardly take up space in explaining it. In all doubtful cases, the patient is inoculated from his own sore, and if a syphilitic ulcer is produced, similar to the one

I give, however, M. Ricord full credit for the honesty of his statements; and, in his avowal that in making his experiments he had no pre-conceived notions to support. Finding that in the great majority of cases, the inoculation of gonorrhœal matter was not attended with any result, because it had, according to my opinion, become thick and purulent, I am not surprised that he should at length come to the conclusion, that it did not possess the power, under any circumstance, of infecting the skin, and of thus producing venereal ulceration. But from the honesty displayed in the statement of his own experiments, thus militating against his opinions in the instances adduced, where the virus was taken from recent gonorrhœa, I make no doubt but that he will reconsider the subject, and make use of the ample opportunities he possesses of repeating these experiments with gonorrhœal matter, only during the first or inflammatory stage while it is yet *thin, ichorous, and most infectious.*

If the same virus was not capable of producing both gonorrhœa and ulcers, how can we explain the every day occurrence of men acquiring both affections from the one impure connexion, of which he himself has given numerous instances? It would be travelling a little too far out of the road of common sense to suppose that in every such instance the infecting person communicated two poisons, the one producing ulcers, and the other gonorrhœa. How will he himself account for the fungous ulcers he finds on the cervix uteri, so frequently arising from

from which the matter is taken, it is considered to be genuine syphilis, and treated accordingly. But instead of allowing this second sore to proceed, M. Ricord destroys the part inoculated, on the third or fourth day, before it has proceeded far enough to produce bad effects. By long experience, M. Ricord knows, even on the second or third day, what would be the effects of his inoculation, and thus destroys the part in time, as unpleasant effects might take place were the second sore to become intractable, as has occasionally happened. In some interesting letters in the Lancet on this subject, Mr. Acton arrives at the following conclusions:

1. The secretion of chancre, or of a primary syphilitic sore, during its ulcerating period, produces, when inoculated, a series of characteristic phenomena, as constant as they are regular.

2. No other secretion will produce similar effects.

3. Inoculation, then, distinguishes chancres from all other sores.

4. When the secretion of a sore (be its physical characters those of simple chancre, benign, or malignant phagedena, &c.) produces a pustule, and subsequently a chancre, the surgeon may be convinced that it was itself produced by the contact of syphilitic virus, notwithstanding any other evidence to the contrary.

5. The surgeon may satisfy himself usually as to the nature of the pustule previous to the third day; if then cauterised, there is no fear of its becoming an intractable sore. *Lancet, Jan. 4, 1840, p. 535.*

gonorrhœa, that he makes it a rule never to discharge a woman from the hospital until he has examined this part of her frame? And yet this fungous ulcer exactly corresponds with the second stage of the ulcer called by me the simple primary ulcer which occasions a papular eruption; indeed, he inadvertently acknowledges this power in gonorrhœal matter to produce ulceration by the advice he gives at page 678, not to apply leeches to the neck of the uterus of a woman affected with gonorrhœa, for fear every leech bite should turn into a chancre. He certainly adds that this advice is given because there is a chance of virulent ulcers existing in the womb, but this is a very unlikely contingency.

I perfectly agree with M. Ricord, that the matter of gonorrhœa will not produce chancre, by which I mean the chancre with an indurated base, so well described by Hunter, and which produces a scaly eruption; but if he means by the term chancre, any venereal primary sore I totally disagree with him; as I have afforded sufficient proof, even from his own experiments, that it is capable of producing mild primary ulcers without induration or phagedena, and to this I may add, that when constitutional symptoms arise, they appear in the form of the papular eruption. But I am supported still further in these views, by other experiments he details at p. 109, &c. which he was induced to perform on some galley slaves under his charge in 1794, in consequence of Benjamin Bell's work on the venereal happening to fall into his hands. Three sound young men, he informs us, were selected for the experiment, and inoculated by placing threads soaked in gonorrhœal matter between the glans and prepuce; one of these men had trifling ulcers, which healed under the most simple dressings. But the two others did not escape so easily, for the ulcers caused by the inoculation were slow in healing, for it seems these individuals had a *scorbutic tendency*, although, in the preceding paragraph, we are told that the three men selected were "*bien sains.*" In consequence of this tendency to scurvy, although there were no symptoms of that disease present, it was inferred, that the ulcers of inoculation were obstinate in healing, and resisted all local measures, until acids combined with stimulants were exhibited, and one of them who had a sanious fungous ulcer was affected with pains, which ran through his entire frame.

Several other experiments of the same description are detailed in p. 111, &c. In every instance ulcers followed the inoculation of the gonorrhœal virus, but when obstinate and followed or accompanied by eruption and pains, were attributed, not to the venereal poison, but either to "scrofules bien prononcées," or to obstructions "dans le bas-ventre." Six individuals had "une constitution faible, irritable cochochyme," one was "né de parents affligés de la goutte," while another was subject to hemorrhoids, and the "rebellious ulcer" caused by inoculation would not heal until there was a return of the hemorrhoidal discharge. But I need not multiply farther proofs of the facility with which even men of experience will not see the most obvious facts, when their vision is obscured or obstructed by a veil of preconceived notions or prejudices.

M. Ricord's third section consists of experiments of inoculation made with the matter of bubo—sixty-nine experiments were performed, in twenty-six of which it was successful, and in the remaining forty-three was not attended by any result. Some curious and interesting facts were developed by these experiments. It was ascertained that the nearer the matter was taken from the surface of the affected gland, the more likely was the infection to succeed, and on the contrary, the matter furnished by the parts exterior to the gland was not infectious.

The fourth section of M. Ricord's work consists of experiments of inoculation with the matter of constitutional ulcers, in all of which (twenty-three,) the results were negative, that is, the matter did not produce any effect. Several of the persons from whom the matter was taken, were however, altogether unfit subjects for this purpose; for instance, the matter in one patient was taken from an abscess near the root of the penis, most probably not venereal, in another from a doubtful pustule of the umbilicus, in a third, from a cancerous ulcer of the cervix uteri, and in a fourth, from gonorrhœal ophthalmia—a primary and not a secondary affection. In seven instances the matter was taken from condylomata, or "tubercules muqueux," in the fossa of the nates, or on the inside of the upper part of the thighs.

The negative result of the remainder of these experiments with the matter of constitutional ulcers, tends strongly to support Hunter's doctrine, that the matter they produce is not infectious, and it agrees with my own opinion, that venereal

diseases every day become milder, until they at length yield to the powers of the constitution. But notwithstanding these views, backed by M. Ricord's experiments, and those tried by Hunter, which prove that the inoculation of the blood of an infected person will not communicate the disease, how does it happen, as even in one of the instances detailed by M. Ricord, that a diseased infant will infect the breast of a sound woman. The ulcers in the mouth of the infant are not primary but secondary, as they are derived from the constitutional disease of infected parents; and a diseased nurse, vice versa, with ulcerated nipples, will communicate the disease to a sound infant. I have met with instances of young married women above suspicion, who were affected with constitutional symptoms, and who, on the minutest enquiry, I could not learn, ever had any primary venereal affection. At the same time their husbands, though equally free from primary, at the time of their marriage had on them secondary symptoms in the form of eruptions or ulceration of the throat. From these circumstances, I cannot but conclude, that the matter of constitutional eruptions *may be* contagious, and this opinion has not been removed by M. Ricord's experiments; for as the virus of small-pox and cow-pox loses its infectious properties as it becomes purulent, so in the same manner, we may, from analogy, conclude that venereal eruptions are infectious while their contents are thin and serous, but that they lose this property as soon as *they* become purulent, and there is still far less chance of their retaining any portion of their specific poison when they spread into ulcers: therefore, I should hesitate to conclude, that secondary symptoms are altogether non-contagious, until experiments of inoculation are made with the serous fluid of venereal eruptions, or whatever their contents may be at their first appearance.

No experiments have yet been instituted for the purpose of ascertaining, in an accurate manner, whether there is only one or a plurality of poisons. Had I made experiments with this view, they would have been looked on with a very suspicious eye, knowing my prepossessions in favour of the latter doctrine. But when *I* am enabled to support my opinions by the experiments of those who have neither these prepossessions, or are actually opposed to them, the evidence thus elicited may be considered most satisfactory. Now, from the experiments of Bell and Ricord, I consider that Hunter's doctrine of the same

poison producing both chancre and gonorrhœa to be completely negatived. I also consider from the experiments of Ricord himself, (though he does not come to the conclusion,) that it has been proved, the matter which produces gonorrhœa may also occasion ulcers, a position which is supported by the accurate observations of Evans, who traced in a most satisfactory manner, in numerous instances, *the mild species of primary ulcer, which he calls venerola vulgaris. to gonorrhœal infection.* These observations of Evans, most unequivocally support my doctrine, that the same virus produces gonorrhœa (both urethral and external,) and a mild form of primary ulcer, without induration or phagedena. Now this position being admitted, and from the evidence adduced, I do not see how it can be denied, it is equally demonstrative, that these primary forms produce the papular eruption with the group of constitutional symptoms, which I have described as its concomitants.

Dublin Medical Press, April 1, 1840, *p.* 217.

Mr. C. then goes on to say that Hunter considered the views of chancre and gonorrhœa to be identical; Bell, Evans, and Ricord considered these venereal affections to arise from distinct poisons.

But, says he, the experiments of all in my opinion, *prove* the existence of at least two poisons, and in the course of this lecture I shall adduce some other experiments of M. Ricord to show, contrary to any inductions of the experimenter, that there is at least a third venereal poison. But in a practical point of view, whether we admit one, two, four, or any number of poisons is a matter of total indifference, provided we make ourselves acquainted with the grouping of symptoms, or of the different forms of the venereal disease, if you are *still* advocates for the old belief that all the varieties of this malady spring from one poison.

I shall now call your attention to that particular form which produces an eruption of pustules, that terminate in mild superficial ulcers, which, unlike those of the phagedenic constitutional disease, evince an early disposition to heal. The primary ulcer which occasions this eruption, has a smooth surface and elevated edges. It does not, in the second or third week, show a raised fungous surface, or any appearance of granulations, like the mild primary ulcer which occasions a papular eruption. I have placed

it between the latter form, and the phagedenic, as being a *juste milieu* between the mildness of the one, and the severity of the other; but whether it is caused by a distinct poison, or that its peculiar characters should be owing to other circumstances, must remain *sub judice*, until experiments of inoculation, judiciously and fairly instituted, establish or annul its claim to this distinction. It is, however, both in the character of its primary as well as secondary symptoms more allied to the phagedenic than to the papular form of venereal disease.

In order to avoid the *quæstio vexata*, of whether there is one or more venereal poison, and not occasion umbrage by opposing the prepossessions of any person, I shall, in future, try to speak of those congeries or groups of symptoms under the term *form*, with the name of the eruption with which they are connected, adjectively appended. Thus we shall have the papular, pustular, phagedenic, and scaly forms of venereal disease. But, instead of *forms*, if you agree with me, you will call them *diseases*.

I shall begin with the papular form of venereal disease, which comprises the great majority, perhaps nine-tenths of the cases which occur in this country. The primary symptoms are a mild form of ulcer, without induration or phagedena, and a gonorrhœa virulenta. Under the latter term, I not only include this disease, as it affects the urethra in both sexes, but the vagina in the one, and the glans penis, and interior surface of the prepuce in the other. The latter affection, in the male sex, is usually called spurious or external gonorrhœa, and incorrectly, chancrous excoriation. These several affections are fequently found in the same individual, and contracted by the same sexual connexion; from which circumstance alone, independently of the experiments of inoculation of M. Ricord, and the accurate observations and experiments of Mr. Evans, already noticed, we may safely infer that the same virus is capable of producing both ulceration and gonorrhœa, although the patient may, at the time he comes under our observation, exhibit but one of these affections.

The ulcer commences in the form of a pimple or vesicle, with some surrounding inflammation: the matter contained in the vesicle gradually becomes more clouded or opaque, ulceration then takes place, when the disease is in general for the first time discovered by the patient, in consequence of the itching or

stinging sensation occasioned by the ulcer. The duration of such a pimple or vesicle before ulceration, is more likely to be learned from experiments of inoculation, than from any information to be obtained from patients. According to Ricord, a period of six days will elapse from the time of infection to that of ulceration, during which time there is first a redness, then a pimple with a red areola, then a vesicle containing a liquid more or less turbid, which at length becomes purulent; a scab then forms, on the separation of which an ulcer is exposed. The ulcer is excavated, and secretes a thin ichorous matter during the first eight or ten days, which marks the period of infection; the matter then gradually becomes purulent, which marks the period of reparation, and the decline of the specific powers of the poison. It then becomes daily less excavated, and at length its surface rises above that of the surrounding integument, presenting a smooth fungous appearance, without induration, by which it is distinguished from true chancre, or even fulness, except it has been irritated by the use of stimulating applications. Neither are there raised or elevated edges, by which it may be distinguished from the primary ulcer which occasions a pustular eruption; nor does it present a phagedenic or sloughing surface—so that, at the period when ulcers assume their specific characters, in the second week from their commencement, it may be known, *positively*, by its smooth, mild, fungous-looking surface, and *negatively*, by the absence of the characteristics of the other forms of primary venereal ulcers.

If we wish to experimentalize with the virus of this form of disease, we should take the matter for inoculation while the ulcer is still in its excavated and progressive state, before the period of reparation, the discharge not having as yet become purulent. This is the period also in which we may have a good prospect of extinguishing the disease at once, by cauterizing the ulcer with nitrate of silver; with which view it will not be sufficient to touch the sore slighly with the escharotic—it ought to be applied effectually, and to the very bottom of the ulcer. The mode which I usually pursue for this purpose, is to apply the powdered nitrate of silver to the ulcer on the end of a moistened probe. M. Ricord, it seems, felt always certain of stopping the progress of an ulcer caused by inoculation, in cauterizing it, even at the fifth or sixth day after its commence-

ment. A fact, coming from such high authority, on this part of our subject, ought to assure us of the advantage likely to arise from the practice I have recommended.

I constantly have recourse to it, as long as the ulcer is excavated, and continues to secrete a thin ichorous, and therefore a poisonous matter. But when the discharge becomes purulent, and the surface of the ulcer is smooth, raised, and fungous, I prefer, above all other applications, a solution of the nitrate of silver, in the proportion of from one to three grains to an ounce of distilled water—under which application, with rest, moderate diet, and aperient medicines, to which I usually add small doses of tartrate of antimony, these ulcers are found to heal in a period of time scarcely to be credited by those who trust to mercury alone for their cure; and, I shall venture to add, with a far less proportion of secondary symptoms than fall to the lot of the decided mercurialist to experience. I do not consider it necessary to exhibit mercury for these ulcers, because I find, from very ample experience, that it is not capable of preventing the accession of constitutional symptoms of this form of disease, and certainly it would appear inconsistent to order a medicine that does not even expedite the healing of the sores in question, with the view of preventing those secondary symptoms, for which I would not exhibit it, were they even to occur.

When external or spurious gonorrhœa exists, which is seen to affect the glans and internal surface of the prepuce not uniformly, but in excoriated patches, brushing over the parts thus affected, lightly with lunar caustic in substance, will act on the disease like a charm, and cause it, in general, to disappear in a few days.

If one application of the nitrate of silver does not succeed, a second or third, at most will; which, with the application of dry lint, and exhibition of some mild aperient, are all that is necessary to cure this complaint. Lint soaked in a solution of nitrate of silver, three grains to the ounce of distilled water, laid between the prepuce and glans, and changed twice or thrice a day, may answer equally well, but it is not so expeditious in removing this affection as the application of the nitrate in substance and dry lint afterwards.

Venereal primary ulcers of every description are probably more likely to be found on, or in the immediate neighbourhood of the frenum, than on any other part of the penis. When,

on the frenum, nothing will stop their progress until they ulcerate through it, I, therefore, am in the habit of anticipating this slow process of nature, which will inevitably occur, by making a free division of the frenum with a sharp-pointed bistoury, and, on the following day, applying the nitrate of silver freely to this divided surface as well as to the entire of the ulcer. By which means the duration of the patient's confinement is usually curtailed many weeks.

Ibid, April 15, 1840, *p.* 249.

In a subsequent lecture Mr. Carmichael refers more particularly to the mercurial treatment. He says:

I shall now conclude by a brief summary of the symptoms and stages of all forms of venereal which I conceive require the employment of mercury :—

1st. If cases of the simple primary ulcer of the papular venereal disease do not yield to rest, the antiphlogistic treatment and astringent washes, after the third or fourth week I usually give mercury in alterative doses, in the same manner, and with the same views as I would exhibit it for any indolent ulcer which is not venereal ; but this is seldom or never necessary.

2d. When the papular and pustular eruptions become scaly, and obviously on the decline, in general not sooner than the fourth or fifth week, if not yielding satisfactorily to sarsaparilla, antimonials, or hydriodate of potash, I exhibit mercury in alterative doses, combined with sarsaparilla.

3d. Whenever iritis occurs, I give mercury so as to excite its full effects upon the system.

4th. When nodes arise, which usually commence with inflammation of the periosteum, if iodine fails, I also give mercury so as to produce its full effects ; and, in the last two instances, it is exhibited on the principle, that there is no process so powerful in checking periostitis or inflammation of any membranous part, as mercurialization of the system.

5th. In the phagedenic form of venereal disease, I may safely say, that I have almost always found, sooner or later, the exhibition of mercury prove to be injurious. For primary ulcers invariably so, and the same may be observed while the eruption continues to present the form of rupia, or tubercles. But after the disease has existed for months or years, when each succeeding crop of eruption has a tendency to change its character into

that of scaly tubercles, alterative doses of mercury may, *perhaps*, be of use; yet, of this I am very doubtful, for I have seen, even in this exhausted state of the disease, more relapses than perfect cures by mercury, exhibited either in full or alterative doses, under the most guarded and judicious mode of administering that medicine. In such cases I place much more reliance upon the administration of hydriodate of potash, in conjunction with sarsaparilla. When the presence of nodes indicates the utility of mercury, I restrain myself from its exhibition should rupia also be present, from experience of its injurious effects on the general disease, under this form of eruption: and even when extensive ulceration of the fauces, engaging the velum, tonsils, and entire pharynx, seems to threaten the life of the patient, I would try every method likely to succeed, before I should have recourse even to mercurial fumigations, for fear of mercurializing the *entire system*, although well aware of the benefit often arising from their use as a *local remedy*. I have found mercury, in every stage of the phagedenic venereal disease, to be a most deceitful and destructive drug; for, although symptoms may amend for a brief period, under its use, and flatter both patient and practitioner that a speedy cure is at hand, yet, almost to a certainty, new symptoms will arise to disappoint those sanguine expectations. If mercury is at all admissible for this form of venereal disease, it is, as I before observed, when the malady is obviously on the decline, and that the eruption has assumed the appearance of scaly tubercles or blotches. This observation equally applies to the pustular form of venereal disease.

6th. For the true Hunterian chancre, with hardened edge and base, and for the scaly eruption, either lepra or psoriasis which attends it, as well as the deep excavated ulcer of the tonsils, nodes, and other symptoms belonging to this form of disease, mercury, in full doses, may be esteemed a certain and expeditious remedy; and the reason of the necessity of exhibiting mercury seems to be that both in its primary and secondary symptoms there is but little or no accompanying inflammation or fever as in the other forms of those maladies.

From this statement of my views, you perceive that it is only in cases of the true Hunterian chancre, with hardened edge and base, that I prescribe mercury with the intention of preventing the accession of secondary symptoms; but in conse-

quence of the infrequency of this primary ulcer, it is therefore seldom required in my practice. I cannot, therefore, from my own experience, advance any facts calculated to answer the question—whether mercury has or has not the power of preventing the accession of constitutional symptoms in *all the forms* of venereal, except in one, *the scaly;* and respecting this form, I can state positively that it does possess this preventive power; for I have seen secondary symptoms so frequently follow the Hunterian chancre, in which the induration was not removed by mercury, that I have no doubt of the truth of my affirmation. But that mercury does not possess the same power of prevention in the other forms of venereal, I infer from general reasoning; for as it is incapable of curing these forms, we must naturally conclude that it cannot prevent the accession of their constitutional symptoms. It would, however, be expecting too much, to hope that practitioners in general will relinquish their early prepossessions in favour of the preventive powers of mercury, and follow my example, by only exhibiting it in cases of indurated chancre; and although I might cite, in support of my views, numerous incontrovertible testimonies from military practice, (by which, for obvious reasons, this question must be finally decided,) I shall content myself at present by placing against each other the opinions of two practitioners who have applied themselves to the subject. In favour of the preventive power, M. Bacot says, "that secondary symptoms occur in the proportion of at least one in ten in those cases where no mercury is used, whilst, on the contrary, the proportion of such cases is only one to seventy-five, where that remedy has been employed." Now, against this opinion, so peremptorily given on a question still *sub-judice*, I shall cite the experience of Doctor Fricke, surgeon of the Great General Hospital of Hamburgh, as reported by Doctor Graves, in his lecture, inserted in the *Medical Gazette*, for January, 1839. "With regard to the certainty of cure, so far as the mercurial treatment is concerned, we must say with many of our unprejudiced colleagues, that we are convinced by bitter experience, that syphilis very often returned in the secondary form, *after the most cautious use of mercury, the most careful selection of the preparation, the strictest attention to diet, and a proper observation of precautionary measures.*

Ibid, June 17, 1840, *p.* 404.

MIDWIFERY.

59.—REMARKS ON THE ERGOT OF RYE.

By John Paterson, Esq., of Aberdeen.

I have found the *Secale cornutum*, if properly administered, to be a most useful medicine; at the same time, I shall always consider it a dangerous one, so long as its uninterrupted action on the uterus cannot be governed by any given dose of the medicine. In the great majority of lingering labours, when there is no rigidity of the *os uteri*, and when dilated, I would say to nearly the size of a crown piece, I consider the ergot more to be depended on, as to its particular effects on the uterus, than almost any other specific in the Pharmacopœia. I have never seen injury arise to the mother from the largest doses; but its effects on the child do not warrant me in bestowing on it the same encomiums to which some medical writers on the subject think it entitled. In eight cases where I used the medicine in half drachm doses, and closely watched its action, it fully answered my expectations, by acting strongly in less than five minutes after it was administered; and I will venture to say that, if properly used, given in proper doses, and the medicine fresh, (which it very seldom is,) it never will disappoint the medical attendant as to its stimulating effects. In every one of these cases, there was in the symptoms produced a uniformity very surprising;—all the patients expressed their feelings in the same language, viz. that they never felt themselves in a similar state as their pains were never away. Could the action, therefore, of this medicine be in any way regulated by the accoucheur, I am satisfied that, to a great extent, it would supersede the use of instruments; but until that can be accomplished, it has that great disadvantage, and will always require to be

given with extreme caution. Out of these eight cases in which I used the ergot, I lost three children, than which no stronger evidence need be adduced of its extreme danger. In the works which I have read in reference to this medicine, I have been struck at finding so little allusion made to its bad effects upon the child,—very few instances being recorded of its fatal effects. In the three cases alluded to, I satisfied myself before its administration, that the children were not only alive, but apparently strong and healthy; but so soon as the action of the medicine commenced, these impressions gradually became less sensible to me and the mother. On these three occasion I regretted very much that no inspection was permitted. In two of them, in particular, the conjunctiva was literally gorged with blood; and I have little or no doubt that death was occasioned by the uninterrupted pressure of the uterus upon the brain. In that way, and by premature separation of the placenta before birth, produced by the same action, I doubt very much if more deaths are not occasioned than by the use of instruments; at least my experience leads me to that conclusion.

I have already mentioned, that I have not in a single instance found that injury has been done to the mother, thus giving the ergot, in one respect, a great advantage over the forceps: and it is a question which time and experience alone can decide, how far the one is to be preferred to the other. Like many useful and powerful agents, to be eminently useful, it only requires to be kept under control; and until some regulating power can be applied to its incessant action, though with me a great favourite in certain cases, I must always consider it both as uncertain and dangerous. I have observed that the separation of the placenta before the birth of the child, may in some cases be the cause of its death, and I am induced again to allude to this circumstance, from what I have found in cases where I was obliged to perform the disagreeable and dangerous operation of introducing the hand. In no such cases, in my opinion, will this be required, unless perhaps where fatal results are anticipated from profuse and sudden hemorrhage.

Edinburgh Med. and Surg. Journal, Jan. 1840, *p.* 142.

[We must beg to disagree in some opinions which the author of this otherwise excellent paper advances with respect to the action of the secale on the child. He thinks it acts pernicious-

ly, owing to the uninterrupted pressure of the uterus upon the brain of the child, or to the premature detachment of the placenta. Now we know that the head of a child may be pressed upon very severely for a considerable period, and yet the child will generally be born alive, if the pains of the uterus are *not uninterrupted.* We have had numerous cases of this kind, where the head has become impacted in the bones of the pelvis, by the severe action of the uterus, and yet, if the pains abated ever so little, (and we never knew a case of labour where the pains were uninterrupted except from the effects of ergot) the child would be born alive: and therefore we are not warranted in supposing that pressure upon the brain of the child to the extent which we may suppose the womb can exert, is the cause of death. Neither can we suppose that a premature detachment of the placenta so often takes place while the child is in utero: in this case we should often have copious flooding either before or after the birth of the child. We might not, indeed, have much flooding externally whilst the head of the child firmly blocked up the external passage, but the uterus would probably be unusually distended with coagulum, which would be discharged afterwards: whereas, how often does it happen that the child is still born from the effects of ergot, and no hemorrhage whatever follows the expulsion either of the child or placenta. We should rather attribute the bad effects of ergot upon the child to the following cause: and we may be permitted to form an opinion after a very extensive practice in midwifery for the last ten years.

In order that ergot should act perniciously on the child, it is in the first place necessary that its action on the uterus should be *uninterrupted.* We have seldom or never witnessed any bad effects on the child when the patient had some *rest between the pains.* This is a remarkable fact, and when pointed out, will no doubt be corroborated by most medical men of experience. We may give secale with perfect safety both to mother and child, if we give it in that moderate dose (as from 20 to 30 grains,) which shall not produce an *uninterrupted* action of the womb. But as certainly as we give it in an immoderate dose we shall kill the child, unless it be expelled very shortly after the violent action of the womb has taken place. If the os uteri be fully dilated and the pelvis sufficiently capacious we may give ergot in much larger doses with impunity, because the

violent action of the womb is modified, or as it were, counteracted by the rapid descent of the child. But what is the reason of all this? It has never yet been satisfactorily explained in any publication with which we are acquainted. We would humbly suggest that it is owing, not to the pressure of the womb upon the child; not to the entanglement of, or pressure upon the cord; not to the premature detachment of the placenta—but simply to the long-continued stoppage of the circulation through the vessels of the womb, and consequently to the want of proper oxidation and decarbonization of the fœtal blood: and this view seems to be quite confirmed by all the facts which can be advanced to support the opposite opinions.

By the continued, uninterrupted, and violent action of the uterus, the circulation is almost completely impeded, and the child dies in the same way, and from the same cause as when an adult dies, when deprived of atmospheric air. It will survive a certain time even when the uterine circulation has been thus nearly completely interrupted, but it cannot survive long. It will also survive if the violence of the pains abates a little, so as to give the uterus an opportunity of having its vessels replenished with a fresh supply of the maternal blood.

And when we reflect upon the kind of connection which exists between the placental and uterine vessels, and also upon the kind of parietes of which the womb is composed, we can readily conceive that nothing would be more easy than to prevent communication between the vessels of the placenta and uterus by the continued efforts of the parietes of the womb to contract. We believe that during every pain of the womb in all labours there is a short interruption to the communication between the placenta and uterus, but this is not felt by the child, because it is momentary. And if the uterus were to act without interruption in any labour, even independent of the action of the ergot, the effects upon the child would be equally pernicious: hence we see the wise provision which exists to prevent this evil, by the womb contracting and relaxing at intervals. This view is confirmed by the fact mentioned by Dr. Carriere, of Strasbourg, that during the uterine contractions the *blowing sound* produced by the flux of the arterial blood into the uterine sinuses is very much weakened or altogether suspended, and again returns when the pain has subsided. The same *blowing sound* will even continue for some time after both

child and placenta have been expelled, when the uterus does not contract properly.*

While we are dwelling on the effects of ergot, we would refer our readers to an elegant preparation of it made in the way described by Dr. G. O. Rees, and recommended so strongly by John C. W. Lever, Esq. in the *Medical Gazette*. It is an ethereal solution of ergot, which seems to have all or most of the good effects with few of the bad effects. Dr. Rees proceeds as follows to describe the way in which he prepares it.]

The ethereal solution, the properties of which you have so well tested, was prepared by digesting ℥ iv. of the powdered ergot in f ℥ iv. of ether during seven days. The result was a solution of the fatty matters contained in the drug: this was poured off, evaporated to dryness, and the residue again dissolved in f ℥ ij. of ether. I have since tried to re-dissolve in alcohol, but the fatty matter appears to contain myricin, which resists that menstruum even at a boiling heat. The solution should be kept in a well-closed glass-stoppered bottle, to prevent evaporation. Each ounce of the preparation may be considered as equivalent to two ounces of the ergot, or ♏xv. to a half-drachm dose of the powdered drug. Should there be any objection to the administration of the ether, the practitioner has only to drop the required dose upon a piece of lump sugar, and expose it to a current of air for a few minutes, when the fluid will completely evaporate. I regret that I have not had leisure to procure the different fatty matters of the ergot in a separate form, and so subject each to trial as a medicinal agent. If this were done, there is little doubt but that a still more convenient form for exhibition might be obtained, and the peculiar action of the drug traced to its true source. It appears highly probable that the fatty matter contained in the ergot is peculiar in character; from one specimen which I examined, I obtained a fat which, when treated with strong sulphuric acid, became a fine green colour—a re-action which I am not aware has ever yet been noticed as occuring with any fatty substance either from the vegetable or animal kingdom.

Medical Gazette, April 10, 1840, *p.* 108.

* See Article 61, for some very interesting observations by Dr. Carriere, which will completely confirm our views on this subject.

60.—NEW METHOD OF TREATING RETROVERSION OF THE WOMB.

By Charles Halpin, Esq., Cavan.

(Read before the Obstetric Society of Ireland, January 2, 1840.)

[The author first enters into the explanation of the nature of retroversion of the womb. It is that mal-position when the fundus instead of lying upwards towards the umbilicus is forced downwards and backwards into the pelvis, below the promontory of the sacrum, whilst the os uteri is carried forwards above the symphasis pubis. Retroversion generally takes place between the third and fifth month of pregnancy, but may also arise independent of impregnation. Before explaining his own method of returning the womb into its proper place, he enumerates the methods of several eminent accoucheurs, which were chiefly by the use of the fingers or the hand. Dr. Davis was the first who mentioned any other means than the fingers or hand. "He advises the introduction of the first and second fingers of the right hand within the sphincter ani, with which we are to keep a steady pressure on the uterine tumour, so as to raise it up gradually. This must be done, not by violent jerks, but by most cautious efforts. If the fingers are not sufficient, Dr. Davis recommends an instrument that shall be long enough to continue the bearing: it consists of a piece of cane of considerable thickness, with a broad, firm, and finely textured piece of sponge secured at its top. When this has been borne for some time on the retroverted fundus, the latter will sometimes be felt to pass suddenly up into the abdomen.

Mr. Halpin then relates the case which first called his ingenuity into exercise, and which neither he nor Dr. Finlay could reduce by the ordinary method. He found that his fingers embraced too small a space on the fundus, and instead of its being replaced it only became intended. He then says:]

I now saw clearly that my only chance of rescuing this woman from her perilous state would be, in the use of some instrument which could be brought to bear equally on all parts of the tumour, and with which sufficient power could be applied to raise it fairly above the promontory of the sacrum.

It instantly occurred to me, that *with the assistance of a bladder I should be able to inflate the pelvis, and thus raise its contents into the abdomen.* We acted on this suggestion. I attached a small recent bladder to the tube of a stomach pump, with an air tight piston, and having immersed it a few moments in warm water, to bring it to the heat of the body, I introduced it, empty, into the vagina, between the fundus of the uterus and the rectum. Retaining it within the vagina by holding my hands firmly across its orifice, Dr. F. inflated it slowly and steadily. After a time she complained of a sense of tension or bursting, but no pain. We then ceased throwing air into the bladder, allowing what was in already to remain, keeping up, as it did, a steady, equal, well-directed pressure on the tumour. After the expiration of five minutes we threw more air into the bladder, when the patient exclaimed slowly, "Oh, now you are forcing something up to my stomach!" I retained the bladder some time longer in its situation; and then, previous to withdrawing it, permitting the escape of some air, I introduced my finger, and had the satisfaction of finding that the tumour was no longer in the pelvis, and that the os uteri lay within reach of my finger, pointing downwards and backwards. I then, and not till then, removed the apparatus.

I now come to consider the instrument which I have found so efficacious. It consists of a small recent bladder, armed with a stop-cock, attached to the tube of a syringe: from our knowledge of the capacity of the pelvis, it will be easy to select one of proper size. A recent bladder is to be preferred, as being particularly easy of introduction. I stated in the commencement, that it is easily applied, safe in its employment, and unerring in its effect; and I do hope, and trust, that when trial has been made with it, its utility will be admitted. If the force obtained by a body of air is not sufficient for the purpose, by substituting water we shall be in possession of a power that will be irresistible, not only by the soft parts within the pelvis, but even (were it necessary) to the bursting asunder of the bones that form that cavity; whilst, at the same time, we have this power so completely under control, that no bad consequences can arise from its use. Contrast it for one moment with the formidable proceeding of introducing the whole hand into the vagina, or through the sphincter ani, together with some fingers of the other hand into either of those passages to assist it. Not

all the proper caution of the senior surgeon of the Hotel Dieu at Lyons can ever make this other than a painful, dangerous operation.

This instrument, I take it, is applicable not only for restoring the uterus to its normal situation, but also for retaining it there. Dr. Gurtshore advises filling the hollow of the sacrum with sponge, to prevent a recurrence of the retroversion.

Dr. Blundell, and others, direct us to keep the patient in bed for two or three weeks, resting on the knees and elbows once or twice each day, for an hour or two at a time. Very few women will, or can, submit to this confinement. The retroversion having been rectified, I would introduce, as a pessary, a gum-elastic bag constructed on this principle, and inflate it to a proper state of distension. It will remain without producing the least annoyance to the patient; and cannot, from its nature, obstruct the free passage of either urine or fæces; whilst it will render the descent of the uterus within the pelvis a matter of impossibility. This pessary will also be found useful in other affections of the uterus, and its appendages.

Dublin Journal of Med. Science, March 1840, *p.* 76.

[In a discussion on this subject in the Dublin Obstetrical Society, Dr. Churchill says that he]

Should not *a priori* have supposed that the apparatus used by Dr. Halpin would have served his purpose, as he should have imagined the bag would have become distended as much towards the neck of the uterus as towards its fundus.

Dr. Beatty agreed in the principle that a dilating bladder expands in every direction it can; he thought, therefore, in the case detailed, it did fill up the vagina at *every* point; then the question was, whether, the distending force being continued, it would tear the vagina at its anterior part, or force up the fundus. The latter being found easier to effect, the fundus yielded and the organ was restored. Dr. Beatty then alluded to the interesting case detailed by Mr. Baynham in the Edinburgh Medical and Surgical Journal, a case in which, having found all ordinary means fail, he punctured the uterus through the rectum. The woman aborted twenty-five hours after and recovered. He thought the operation worth recollecting; one point connected with it, he considered interesting, in conse-

quence of the discussion then going on in Dublin, with respect to the situation of the placenta; namely, that when the ovum was expelled, the placenta was found pierced by the trocar at the part which corresponded to the fundus uteri. She was then in the sixth month of her pregnancy.

Ibid, May 1840, *p.* 345.

61.—ON OBSTETRICAL AUSCULTATION.

By Dr. Carriere.

The following summary of an elaborate thesis, recently published at Strasbourg by Dr. Carriere, will probably be read with profit as well as interest.

Dr. C. alludes to the more than ordinary difficulties which attend the successful pursuit of this branch or department of auscultation. He admits that he was often foiled in his early attempts, and that it was only by the most assiduous perseverance that he at length succeeded in being able to recognise the various sounds which have been described as emanating from the uterus when in an impregnated state. He does not however hesitate to assure his readers that any one may, by repeated practice, acquire—provided his hearing is of average delicacy—the necessary aptitude to recognise, and that too with facility, all the auscultatory signs of pregnancy.

The following is the manner in which Dr. C. proceeds in his examination. He commences by applying the end of the stethoscope, the plug being removed, to the left iliac region, because there the double pulsation or tictac of the fœtal heart is most frequently heard. If it is not audible there, he moves the instrument a little up, then down, then to the outside, and lastly to the inside of the spot from which he started, thus proceeding from the left iliac region as from a centre. As soon as he discovers the pulsation he then follows it step by step as it were, so as to determine the direction in which it is heard, and the precise point at which it is loudest and most distinct.

Even when we discover the cardiac tictac in the left flank, it is always right to examine with equal care the opposite one, as it is possible that another pulsatory sound may be heard on the right side.

Having thus satisfied ourselves of this most important phenomenon, we should then endeavour to detect the other acoustic sign of pregnancy—the blowing or placentary sound.

"In women," says Dr. Carriere, "whose pregnancy is but little advanced, as far as the third or fourth month for example, the placentary or blowing sound is to be sought for immediately above the symphysis pubis, the fundus of the uterus scarcely overtopping at this period the plane of the inlet of the pelvis. In such an examination it is quite necessary that the woman should be lying on her back, with the limbs drawn well up so as to have the abdominal muscles relaxed, and that the stethoscope be used for the purpose of pressing them well in upon the uterus. This is especially important at the early periods of pregnancy; as then, not only should the abdominal parietes be kept in immediate contact with the uterus, but also this viscus with the contents within its cavity."

The Blowing Sound.—This phenomenon consists usually in a sort of jerking sound (bruissement saccadé) more or less prolonged, and interrupted by regular intervals: it has been frequently compared to the sound proceeding from certain arterial aneurisms.

Laennec compares it to the blowing noise frequently heard in the large arteries of chlorotic patients; Velpeau to the sound of muscular contraction, or to that produced by strongly compressing arterial trunks. To say the truth, it is certainly not easy to convey to those who have not heard it, a right idea of the uterine blowing sound.

Whatever be its character, it is always strictly isochronous with the pulse of the mother,—becoming duller and more prolonged, when the pulse is slow; and more short and dry, when the pulse is quick. It is never accompanied with any shock; and it is usually limited to a circumscribed spot, decreasing in distinctness as the stethoscope is removed from the point where it is heard loudest. Let it also be remembered that at one moment it may be heard distinctly, and that the next minute it may be quite inaudible; its tone or character being often found to vary in the course of a few minutes. It is generally imagined that the blowing sound is heard on the opposite side of the hypogastrium from that on which the fœtal pulse is perceptible. That this is not always the case will appear from the circumstance that, out of sixty-one cases observed by Dr. Carriere

and in which the exact position of the two sounds was carefully noted, they—the sounds—were heard on the same side in not fewer than thirty-four.

Of sixty-six cases, where the position of the blowing sound was noted, it was heard on the left side in thirty-eight, on the right side in twenty-eight, eleven times about the middle of the hypogastrium, seventeen times higher up, and thirty-eight times low down; or we may state these results in a different manner, the *bruit de soufflet* was heard twenty-one times on the left side and low down, seventeen times on the right side and low down, eleven times on the left side and high up, five times on the right side and high up, six times on the left side and in the middle, and six times on the right side and in the middle.

With respect to the earliest period at which this sound may be heard, Dr. C. informs us that he has in several cases succeeded in detecting it as early as the end of the third month, when the fundus of the uterus had scarcely passed above the level of the pubis. Far from being diffused at so early a period of pregnancy as Hohl has alleged, Dr. C. always found it to be limited to a very circumscribed spot at first.

As this sound is intimately connected with the circulation in the placenta, it is obvious that it must be audible earlier in some cases than in others, as it is well known that the placenta varies a good deal in the place of its attachment to the uterus in different cases; being sometimes near to the fundus and in other cases considerably lower down. The higher up that it is, the more early, we may expect, will be the development of the blowing sound.

As pregnancy advances, it becomes much louder and more readily recogniseable. However it is not always loudest in the eighth and ninth months; being in some cases observed to be much more distinct and obvious in the seventh. The causes of the various modifications of this sound in different cases are certainly not well known.

During the uterine contractions, or *pains*, of labour, the blowing sound becomes much weaker, or is altogether suspended—returning however after the pain has passed away.

It is usually much more distinct after the amniotic waters have been discharged.

Not unfrequently it continues for several hours after the expulsion not only of the fœtus, but of the placenta also. Dr. C.

is of opinion that this persistence of the sound after delivery is connected with the more or less imperfect contraction of the uterus upon itself.

Without canvassing the opinions of other writers as to the cause of this sound, we shall now briefly state the views of Dr. Carriere on this much-disputed point.

"I am quite satisfied in my own mind that the uterine blowing sound has its cause in the passage of the arterial blood in the uterine sinuses, and that in the great majority of cases its seat corresponds exactly with the insertion of the placenta.

In a number of cases where I have passed my hand along the umbilical cord after the delivery of the child, I have always found that the placenta has been attached exactly at that point of the uterus over which the blowing sound had been heard during gestation. In one interesting case of death from convulsions within twenty-four hours after delivery, the place still quite visible on the inner side of the uterus where the placenta had been adherent, was found on dissection to correspond precisely with the spot where the sound had been perceived during life. I believe with M. Dubois and others that the mechanism of the blowing sound has something analogous with that of the sound heard over an aneurismal varix—its determining cause being the flux of the arterial blood into the uterine sinuses, a flux which is more active and considerable at the point where the placenta is implanted.

Occasionally, but this is rare, the blowing sound is perceptible over almost the whole anterior surface of the uterus.

"This fact," says Dr. C. "which denotes great activity in the uterine circulation, does not at all militate against the opinion which I profess relative to the relation of the blowing sound to the placenta; for I have never pretended that the dilatation of the uterine vessels was limited abruptly to its circumference; and on the other hand I am convinced that, in those cases where the sound is unusually widely diffused, it is always more decided and sibilant at the one point where the placenta is implanted."

With respect to the value of this blowing sound as a sign of pregnancy, Dr. C. is inclined to consider it as an almost certain indication. He much doubts whether the presence of a tumour in the pelvis or in the uterus itself does ever give rise to the *genuine* blowing sound of pregnancy, although MM. Velpeau,

Rayer, Bouillaud, Bricheteau, and Stoltz have asserted that such has been the case.

This opinion of our author is confirmed by the high authority of M. Dubois—who denies that the uterine *souffle* is ever produced by any cause independent of pregnancy—and also of Mr. E. Kennedy.

With the latter gentleman he also believes that the sound may continue to be heard, but less distinctly, for some time after the death of the fœtus.

The force of the sound cannot indeed be ever taken as a sign of the vigour of the infant, it can only indicate an active circulation in the uterine vessels, and perhaps also the existence of a large placenta.

The Fœtal Pulse.—Dr. Carriere compares the double *tic-tac* of the fœtal pulse to the ticking of a watch wrapped round with several folds of linen, with this difference only, that the latter sound is drier and of a more metallic sharpness than the former. The number of pulsations varies from 120 to 180 ; the average frequency may be said to be 140 beats in the minute. In force and distinctness too they are found to differ much not only in different cases, but also in the same case at different times ; sometimes they are so distinct that they are at once and without the least difficulty perceptible, whereas in other cases it requires the greatest attention and nicety of observation to detect them at all. Occasionally the fœtal pulsation appears to be simple and not double, as usual, the second sound of the heart's action being quite obscured.

In reference to the comparative constancy of the two uterine sounds—viz. the placentary and the fœtal—it has been asserted by almost every writer on obstetrical auscultation, that the sound of the fœtal heart is greatly more constant than the placentary or blowing noise.

"In consulting," continues Dr. C. "a summary of the observations, which I have made since the period when I could place confidence in my auscultatory enquiries, I find that out of fifty-nine cases, the blowing sound was detected in fifty-seven, and the fœtal pulsation in fifty-seven also. In these reports, I find it frequently remarked, 'no blowing sound appreciable;' or, 'blowing sound feeble at such a point;' then afterwards, perhaps in a few days or a week or two, 'blowing sound strong, intense, or even whistling, &c.' It is therefore quite manifest

that, before we can establish the relative constancy of the two signs, we must not trust too much to the results of a single, or even a few observations. If a woman be examined but only once, there is certainly on the whole a greater chance of detecting the fœtal pulse than the blowing sound."

Most obstetrical auscultators agree that the fœtal pulse is rarely, if ever, heard before four months and a half or five months have elapsed. We cannot wonder at this when we remember that the organ, even at this latter period of intro-uterine life, is still very small, and that moreover the fœtus lies low down towards the cervix of the womb, and therefore behind the symphysis pubis. Even for a month or two later, the great relative quantity of the amniotic fluid, the mobility or want of fixed position of the fœtus, the size of which is not yet nearly sufficient to fill the bag of the membranes, &c. are circumstances which tend, even up to the middle of the sixth month of gestation, to occasion many chances of unsuccess.

"In the majority of cases the spot, which corresponds to the greatest intensity of the sound, is situated on a line between the umbilicus and the antero-superior spine of the ileum, or towards one of the iliac fossæ. In some cases the pulsations are found in the line of the *linea alba* between the pubes and the umbilicus; and, in a few rare cases, they have been perceived quite towards the fundus of the uterus.

The extent over which they are audible is very various; being sometimes only two inches square or so, at other times comprising almost the whole of the lumbar and iliac regions of one side; most frequently it is a space which may be covered with the hand.

In eighty-five cases, where I have accurately noted down the exact spot where the fœtal pulse was perceptible, I found it seventy-four times low down, eleven times high up, forty-five times on the left side, thirty-seven times on the right side, and three times in the middle or along the line of the *linea alba*. Forty-three times its maximum of intensity was low down and on the left side, thirty times on the right side and low down, three times on the left side and high up; and seven times on the right side and high up. I may remark that in several of the cases where it was heard high up, the pregnancy had not passed beyond the sixth or seventh month."

L'Experience, and Med. Chir. Review, April 1840, *p.* 509.

62.—THEORY OF MENSTRUATION. By M. Gendrin.

The following extract, from the recent systematic work on practical medicine, by M. Gendrin, will explain his views as to the cause or nature of the menstrual function.

"The observations, which we have presented to our reader's attention, necessarily lead us to modify very essentially the hitherto received opinions on the subject of generation of women. They tend to establish that, during the whole of that period of life when the capability of conception continues, there is a constantly-successive development of vesicles and ovula in the ovaries,—that, at each epoch of menstruation, a vesicle having reached the surface of the ovary becomes the seat or focus of a peculiar organic action, in which all the organs of generation partake,—and that the result of this action is the rupture of the vesicle and the loss of the non-fecundated ovum, either by ovarian destruction or by uterine expulsion.

The recent observations by Valentin,—according so well with, and therefore confirming, our deductions drawn from physiological considerations—have shown that the Graafian vesicles contained or inclosed an ovulum, in which are found all the essential parts of a human ovum.

As we find at the same time in the ovarium vesicles in various degrees of development, we cannot well doubt that they exist there only during a limited time or period, from their origin to their spontaneous rupture, which takes place whenever their increase and that of the ovulum are completed. This rupture takes place regularly, at stated intervals, by an organic action, one result of which is the menstrual secretion."

Dr. Negrier, professor of midwifery in the Medical School at Angers, has written, we observe, a letter to one of the French periodicals, in which he claims the priority of authorship in respect to the preceding views on menstruation, his words are:

"The researches of M. Gendrin have led him to believe that the menstrual flux is the result of a periodic and regularly-recurring congestion, which takes place every month in the ovaries.

This doctrine I have taught in my lectures ever since the year 1830, and I have repeatedly shown to my pupils the successive evolutions of the ovarian vesicles from their earliest development to their final rupture, as well as the condition of the uterus at its different phases."

Gazette Medicale, and Med. Chir. Review, April 1840, *p.* 517.

63.—ERGOT OF RYE AS A MEANS OF INDUCING PREMATURE LABOUR.

By James Paterson, M.D.

Dr. Paterson has related two interesting cases of the induction of premature labour by means of the ergot of rye. Deformity of the pelvis was the cause of this operation being required. In the first case half an ounce of the ergot of rye was infused in twenty-four ounces of boiling water, and two ounces of this exhibited every third hour. When this quantity was finished, two drachms more were infused, and administered at shorter intervals; so that altogether the patient took six drachms of the medicine. Labour soon came on, and thirty-nine hours and fifteen minutes from the first administration of the medicine she was delivered of a live child.

The second case required a larger quantity of the ergot, and a greater quantity of time before its specific effects were developed. In all, thirty-four drachms of the ergot of rye were administered; and the time elapsed from the first dose of the medicine till the expulsion of the child was five days, twenty hours, and twenty-five minutes. Both patients rapidly recovered.

Dr. Paterson considers these cases are extremely interesting, as they appear to prove satisfactorily that the ergot of rye is of itself sufficient to bring on premature labour, without being followed by bad symptoms or inconvenience either to the mother or child. Dr. Ramsbotham, in the Gazette for June 15, mentions that in his hands this practice was followed by a greater mortality among the children than when the usual mode of inducing premature labour by puncturing the membranes was followed; and that in four instances, the children delivered by the aid of the ergot died of convulsions a few hours after birth. He attributes this to the deleterious properties of the ergot being conveyed to the infant, and acting injuriously on its tender organization, although it does not affect the mother; convulsive seizure being one of the prominent features of ergotism.

Medical Gazette, June 1, 1839, *and Edinburgh Med. and Surg. Journal, Jan.* 1840, *p.* 252.

ANATOMY AND PHYSIOLOGY.

64.—THEORY OF ANIMAL HEAT.

By Henry Ancell, Esq.

[After enumerating the different theories respecting animal heat, Mr. Ancell gives a very interesting one of his own, which he believes to be new. He states that]

The source of animal heat is in the blood itself; it results from the molecular vital actions of that fluid, and the source of the higher temperature of warm-blooded animals is in the more energetic molecular actions continually going on between the red corpuscles and the liquor sanguinis. These molecular actions are obviously most energetic in the lungs; hence the relation between respiration and the heat of animals; the high temperature of the arterial blood; the correspondence which exists between the temperature of a part and the quantity of blood which circulates in it; and the relation subsisting between animal temperature, and the form, size, and number of the red corpuscles. By this hypothesis we could understand also, the discrepancies which happen between the amount of respiration and the heat of the body, before alluded to. It may well be imagined that alcohol received into the blood would increase these molecular actions and the temperature of the body, and since the latter is not in this case the result of the normal pulmonary absorption of oxygen, we should not expect an increased exhalation of carbonic acid from the lungs, but rather the contrary, and such we find, according to Dr. Prout, to be actually the case. Saline particles taken into the blood would have an analagous effect. Persons who have lost much blood have the faculty of producing heat diminished in correspondence

with the diminished proportion of red corpuscles in the blood remaining in the system. It has been observed by M. Poiseuille that when the blood falls in temperature, the corpuscles stagnate and remain immoveable; when it rises again in temperature "their oscillation recommences." I could multiply these illustrations to a great extent.

The temperature varies in different parts of the body, and this bears an imperfect relation to the distance of the part from the thoracic viscera, but you will find it much more nearly connected with the quantity of blood which it circulates. Dr. Edwards and M. Gentil found in a strong man, the mouth 102°; the rectum 102°; the hands 99° 5′; the axilla and groin 99°; cheeks 96° 5′; feet 96°. Now when we consider the redness and activity of circulation in the hands, it is not surprising that they are warmer than the axilla and groins, and this observation bears out the general proposition that temperature corresponds with the circulation of the blood. Internal are hotter than external parts; this is in part attributable to the cooling power of evaporation, in part also to the quantity of blood. A new instrument has lately been applied to determine the temperature of internal parts by means of thermo-electricity. With this instrument the temperature was found to be 4° higher at the depth of the pectoralis major muscle than in the cellular tissue just below the surface, and a similar difference was observed in other parts of the body. Not only depth but the nature of the tissues influences the temperature, to be explained most likely by the different quantities of blood which they circulate. In these experiments, on compressing the brachial artery, a fall of temperature was indicated with great rapidity, the effect and its amount being ascertained immediately after the application of the cause. Muscles receive a larger supply of blood than cellular tissue, and accordingly are hotter. This accords with some experiments made by Mr. Vines, who found the heat of parts most supplied with red blood, as the glutei muscles, several degrees above those supplied with "white blood," as the interior of the ball of the eye. During muscular contraction, also, the temperature is increased, but it is a fair question whether this arises from a greater afflux of blood alone, or whether heat is produced. The most remarkable fact of the kind is recorded, if my memory serves me, by Dr. Granville, who found the uterus at 120° during its contraction.

When muscular parts increase in temperature, the neighbouring parts, both by contiguity and by afflux of blood, must do so also.

The temperature of infants and their power of producing heat being low, remarkably coincides with a statement made in a former lecture that their corpuscles are larger and fewer in number. The mean of ten observations by Edwards gave 94° 5′, but the converse holds from the fourth to the fourteenth year, and no microscopical observation has been made on the corpuscles at that age that I am aware of.

Here is an important practical consideration:—anything which cools the blood of a part cools the whole body. In Dr. Edwards and Gentil's experiments, one hand having been kept in water, cooled down by ice, the other hand lost nearly 5° of temperature, so that the chilling of a part, as the hands or feet, or chills on the surface, are felt in all parts of the body. I know that this effect is likely to be referred to nervous influence, but I believe it to be communicated to the whole system through the blood. Heat is communicated in a similar manner. I remember seeing, a few years since, in a public hospital, an athletic, plethoric man, brought in with strangulated hernia; he was inadvertently put into a bath at 108°; in a few minutes he became raving delirious; this was quickly followed by convulsions, and before he could well be replaced in his bed, he was a corpse; the pulse in this case continued for some time after the respiration had stopped. Here was the effect of heated blood circulating with undue rapidity in the brain, spine, and throughout the body.

Enough will have been said to convince you that every observation you make upon the *temperature* of your patients, whether of a part or of the whole of the body is an observation on the *blood;* it may also refer to states of the nervous apparatus and powers, but it is necessarily an observation on the blood. You will further be convinced of the immense importance of this consideration when I inform you that, as was long since proved by Hales, the movement of liquids through tubes is rapid in the ratio of their temperature; so it has lately been shown by M. Poiseuille, that the heat of the blood exercises a most powerful influence over the rapidity and force of its circulation.

Mr. Ancell's Lectures.—*Lancet, Feb.* 29, 1840, *p.* 829.

65.—DEPENDENCE OF VASCULAR ORGANIZATION ON PHYSICAL CAUSES.

By Sir Anthony Carlisle, F.R.S., &c.

[Sir A. Carlisle, in an interesting paper in the last *Guy's Hospital Reports*, attempts to prove that vascular organization, at its commencement at least, is more dependent upon physical than vital causes; for example, says he:]

Streamlets, similarly divaricating, appear on the sea-shore, where little pools of water remain embanked by sand. The water oozing through the sand issues in streams; and these subdivide, according to the declivity, into arborescing streamlets, which sometimes again re-unite into larger branches, as in the anastomoses between arteries and veins in animal structures. The same appearances often occur upon clayey or muddy declivities over which streamlets of water flow. Dendritic figures are also common in many stones which were formerly regarded as petrefactions of previously-organized structures. In the compact marly lime-stone, called lithographic stone, these figures often occur; and generally on the surfaces of laminæ, by which it would seem that the ochry pigment had percolated, and spread in the same manner as in that hereafter described respecting pottery. The moss agates, certain marbles, and mocha stone, exhibit similar dendritic figures; whilst the entire bodies of certain corallines assume an arborescent character, as in the corollina muscosa of Ellis. These ramifying figures are not, then, the special productions of living bodies, because they occur in mineral formations, and when they are not the impressions of organized structures. In some instances of organic nature, arborescent figures depend upon tubular vessels, as in animals; but in vegetable structures, these figures are composed of solid woody fibres, while the frame-work of the wings of insects consist of a solid horny substance.

[He then goes on to relate three interesting and simple experiments to show that a similar arborescent or dendritic appearance to that which we perceive in newly-organized structures, is assumed by inorganic bodies, or bodies void of vitality.]

Experiment 1.—If common whiting be mixed with water, so as to reduce it to the consistency of a thin cream, and a few

drops of it be placed upon a piece of glass by means of a common brush, it will be found that, in a few moments, arborescing figures begin to appear in every part, and which, converging together, produce a very beautiful ramifying appearance, traversing every portion of the glass over which the mixture had been spread. This effect can be produced more quickly when the glass is placed either in the vertical position or at an angle of 45°.

Experiment 2.—Having mixed common potter's clay with sufficient water to render it capable of being dropped upon a plate, and then dipping the point of a quill into the mocha fluid hereafter described, carefully touch the surface of the liquid clay with it: and as soon as this has been done, it gives rise to a beautiful arborescence, presenting all the appearances of minute vascular injection. It is this figure which, in our potteries, is distinguished by the name of mocha pattern.

Experiment 3.—If blood just taken from a patient labouring under an acute inflammatory disease, be allowed to remain at rest for a short time, the buffy coat begins to form; and if before it has become at all crisped or dry, a single drop of uncoagulated blood be allowed to touch its surface, it is immediately diffused in an arborescing manner.

[In the second experiment it will be seen that the arborescence takes place by the dispersive property of the mocha, and in the third experiment by the fresh red blood: so that it seems to be the author's view that in all fresh deposits of lymph in the human body, the contact of red blood immediately produces that arborescence which eventually ends in blood vessels and vascularity; just in the same way as the mocha (the property of which consists in an essential oil,) produces beautiful arborescence in potter's clay. But neither Sir A. Carlisle nor Muller, whom he quotes to support his views, tell us *how* the red blood escapes from the adjoining blood vessels, seeing they have no open mouths, and the red globules are far too large to squeeze through the coats of the vessels. The author then proceeds to draw a very practical conclusion from his theory. He says:]

It is a remarkable fact, that as in the example of the double rotation of granules of camphor on water, so in the experiments with the potter's clay, the addition of a very small quantity

of oil or fatty matter is at once sufficient entirely to arrest the dispersive process;—whilst modern surgery has now proved the greater advantage to be derived from the simple application of water dressing to recent wounds, than from the continued employment of oleaginous applications, which have been adopted rather from mere custom and precedent, than from any understood rationale of their action:—may it not also be presumed, that the dispersive action of the red blood is, like the essential oil, capable of being retarded by contact with oily matter; and may not the less beneficial effects resulting from greasy applications, to forming granulations and the adhesive union, depend on the arrest of dendritic motions, and the consequent retardation of vascular organization?

Guy's Hospital Reports, April 1840, *p.* 2—11.

66—ON THE EXISTENCE OF MILK IN THE URINE DURING PREGNANCY.

By Golding Bird, M.D. F.L.S., &c.

[Dr. Bird has been induced to examine the urine of pregnant women from reading in several journals of a supposed discovery of a peculiar mucilaginous principle, dignified by the name of Keistein, and said to be present in such cases. He, however, finds that it is nothing more or less than certain elements of milk which have been secreted by the mammary glands, and not finding an outlet by the ordinary method of suckling, have been excreted with the urine. The circumstance, however, of this substance being so generally present in the pregnant state, will be an important addition to our signs of pregnancy, if similar phenemena are not afterwards perceived in the urine of unimpregnated women, respecting which Dr. Bird does not feel quite satisfied. He says:]

The first specimen of urine submitted to examination was some voided by Catharine Shaw, aged 28, a married woman in the sixth month of pregnancy, admitted under my care at the Finsbury Dispensary, on October 17th, 1839, for a slight attack of bronchitis. The urine was passed immediately on rising from her bed: it was tolerably copious, pale, acid, and rather opaque, of sp. gr. 1.020. About half a pint of it was placed in a glass cylinder, covered with paper. After two days' repose,

it became very much troubled : numerous globules, presenting a fatty or greasy aspect, appeared on its surface: in two days more the urine became completely covered with a pellicle, very closely resembling that which forms on the surface of mutton-broth in the act of cooling : on the sixth day of exposure, this crust broke up, and fell to the bottom of the vessel. On the 26th of October, this patient, now convalescing from her bronchial affection, again sent me a specimen of the urine, voided as before, immediately after awaking from sleep ; and the very same results were obtained ; the pellicle of fat-like matter being, however, much thicker. On November 30th, the urine was again exposed, with precisely identical results.—Although in this woman the phænomena presented by the urine were tolerably constant, yet it became an important matter to determine whether such appearances were not to be met with in the urine of women who were not pregnant, and whether they were constant in every case of utero-gestation. To determine the latter question was, within certain limits, somewhat easier than the former : for this purpose, every pregnant woman who was admitted under my care at the Finsbury Dispensary, or among my out-patients at Guy's Hospital, was desired to furnish specimens of urine, passed after awaking from sleep: this request was not in every instance complied with; but during the months of November and December, specimens from about thirty women, in the third to the last month of pregnancy, were obtained; and in every case, with but three exceptions, copious fat-like pellicles were observed, after two or three days exposure.

[A little further on the atuhor states that]

There are few products formed during repose in urine which can be readily confounded with this caseous pellicle ; if it be borne in mind, that the secretion remains faintly acid up to the moment of breaking up of the crust : which phænomenon I am inclined to regard as arising from the development of ammonia in the urine, as at this time it acquires distinct alkaline properties. The crust of earthy phosphate, which forms on the surface of all urine by long repose, cannot be mistaken for the pellicle under consideration ; as that which destroys the latter, viz. putrefaction. causes the production of the former.

[The author concludes his interesting paper by the following deductions]

1. That certain organic matters, closely resembling, if not identical with, caseous matter mixed with abundance of the earthy phosphates in a crystallized state, are eliminated from the blood during pregnancy; and, if not otherwise removed, are taken up, and finally thrown out of the system, by the kidneys.

2. That certain accidental circumstances, especially connected with those morbid actions in which the kidney is called upon to perform a compensating function for the skin, as indicated by the abundance of azotised matter in the form of amorphous lithate of ammonia in the urine, interfere temporarily with the development of caseous matter, as they do in checking the cutaneous and other secretions.

3. That, taken in connection with other symptoms, as the formation of a dark areola round the nipple, and cessation of menstruation, or abdominal enlargement, the formation of a caseous pellicle in the urine affords a very valuable corroborative indication of the existence of pregnancy.

Guy's Hospital Reports, April 1840, *p.* 16—26.

67.—RAPID CIRCULATION IN THE LYMPHATIC SYSTEM.

By T. Wilkinson King, Esq.

The *structure* and *arrangement* of the absorbent tubes, their small size, their innumerable valves, the rapid narrowing of the aggregate passage towards the heart, and the extremely attenuated and yielding nature of their coats, all serve to render the onward current subject to every neighbouring movement.

The motion of the intestines, the arterial impulses, the action of respiratory and all other muscles, and especially the grand movements of respiration, together with the influence of some atmospheric exhaustion, cannot fail to co-operate with the preceding circumstances to accelerate the currents in question.

It is important to remark, that it does not necessarily follow, from the slow dropping of chyle and lymph into the vena innominata, during experimental observations when there is very little present, that the current is at all times tardy.

Guy's Hospital Reports, April 1840, *p.* 97.

[Aselli, as well as Mr. King, noticed the rapid and almost instantaneous disappearance of the currents in the lacteals, whilst the animals experimented upon were dying and struggling, shewing perhaps that one struggle may empty the lymphatic system. The glands do not seem to retard the flow, but act like forcing pumps by the aid of the arterial injection. Every intervalvular space seems to be a positive heart, and, therefore, we may suppose that the power in these vessels is not so slight as we at first sight should imagine, seeing that Mr. King has calculateed that there are 30,000 valves in the lymphatic system, and only 5000 pairs in the veins, *i. e.* six times the number in the former. Mr. King, therefore, seems to come to a just conclusion that the circulation in this system is very rapid indeed, and that this is one reason amongst others why it was superadded, when the venous system itself might have answered the purpose.]

68.—ON THE NERVES OF THE CORNEA.

By Dr. Pappenheim.

The cornea has been represented by M. Hippolyte Cloquet to be devoid of nerves as well as of blood vessels. In 1830, however, Schlemm succeeded in tracing nerves as far as the margin of the cornea, though its density prevented his following them between its laminæ. The investigation thus commenced has been pursued by M. Pappenheim, who by a simple process, that of immersing the cornea in acetic acid, or a solution of caustic potass, has been able to trace nerves from the sclerotica into the substance of the cornea. That the nerves thus traced really belong to the cornea, the following facts appear to prove: 1. If the corneal conjunctiva is removed, the nervous filaments are seen on the inner, not on the outer surface of the corneal epithelium. 2. The removal of the iris and membrane of the aqueous humour makes no difference as to the ease with which the nerves may be seen. 3. The nerves are distinctly visible entering the margin of the cornea, but less so towards its centre, where they are ultimately lost between the laminæ.

The nerves may be distinguished from the folds of the choroid which mark the cornea by being colourless, and of uniform thickness; from the fibres of the cornea by being smaller, more super-

ficial, scattered, and arranged in plexuses. Internally they are covered by the membrane of the aqueous humour, externally by the fibres of the cornea. The readiest way of discovering them is to immerse the dissected cornea in water, placing it between two plates of glass, with its inner surface turned upwards—gentle pressure, and the light of a lamp are required, and at first a slightly magnifying lens will be desirable. The nerves will then be seen taking the course of the blood vessels, and composed of fasciculi for the most part separate.

British and Foreign Med. Review, April 1840, *p.* 548.

69.—SOURCE OF THE WATERY DISCHARGE FROM THE MOUTH IN PYROSIS.

Dr. Burne in his work on habitual constipation has given rather a new, yet apparently satisfactory, explanation of the source of the watery fluid discharged during a paroxysm of pyrosis. His words are:

"If this fluid came from the stomach, the stomach being full of the preceding meal, it is impossible to believe that none of the food would be thrown up with it; and as no food is mixed with the fluid, one must look elsewhere for its source. Whence else can it preceed? From the salivary glands and muciparous follicles of the mouth and throat? When an emetic is taken, and the person first feels sick, the mouth instantly fills with water, which runs from it in a clear stream, and then follows vomiting of the contents of the stomach. This clear stream is unquestionably furnished by the salivary glands and muciparous follicles of the mouth and throat, suddenly excited to inordinate secretion by sympathy with the troubled stomach; phenomena which form an exact parallel to the nausea of pyrosis and the sudden discharge of the limpid fluid. In both cases the fluid is tasteless, clear, thin, and rather ropy; and in both it proceeds from the same source; of which any one may satisfy himself by questioning patients closely, when he will be informed that the fluid runs from the mouth when nausea supervenes, but is not eructated or vomited."

Edinburgh Med. and Surg. Journal, April 1840, *p.* 486.

D. I. ROEBUCK, PRINTER, 12, GRACE STREET, LEEDS.